The Builder.

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Preservation of Monuments Bill.

RESPECT for ancestral monuments is one of the instincts which distinguish man from beast; and the more refined and cultivated of mankind from their more ignoble fellows. Such being the case, it follows, if for no other reason, that the Bill brought into Parliament by Sir John Lubbock and three other members, "for the preservation of ancient monuments," deserves the support of all those who are concerned for the dignity of the national character, in so far, at all events, as its object is attained.

Nor do we consider that such an attempt to roll away a long-standing national stigma is one that ought to be buried under a cairn of petty amendments as to detail. The Government of the country having the prescriptive habit of neglecting the national monuments, a private effort should be welcomed. Every one interested in archæological science, in ethnography, in architecture, or in the philosophy of history, is appealed to for aid. Every such person should lay aside private opinion in a common effort for a desirable object. We frankly confess that a private Bill seems to us a *pis aller* to such an end. But, such being the case, we hold up both hands for the *pis aller*. Our readers will like to know what the Bill proposes to do.

The preamble is simple:—"Whereas it is expedient to make provision for the preservation of certain ancient national monuments." It is then proposed that the Inclosure Commissioners for England and Wales, with the addition of five *ex officio*, and seven nominated, adjoints, shall form a corporation, under the style of the National Monuments Commission, with defined powers, for the purposes of the Act.

Twenty-nine monuments in England and Wales, twenty-one in Scotland, and twenty-two in Ireland, which are detailed in a schedule annexed to the Bill, are declared to be contemplated by the measure. The Act may further apply to any British, Celtic, Roman, or Saxon remains, or to any monument which is, in the opinion of the Commissioners, of the like kind as any of the monuments specified in the schedule, and which is not situate in any park, garden, or pleasure-ground; subject to appeal from the decision of the Commissioners to one of the Superior Courts of Law or Equity in England, or the Court of Session in Scotland.

When the Act shall have been applied to a monument, any person who unlawfully and wilfully, without the assent of the Commissioners in writing, injures the same, shall be subject to the penalties for malicious injuries, under 24 & 25 Victoria, cap. 97.

Any person who might, but for the Act, lawfully deal with such a monument, may give notice to the Commissioners of his intention so to do. The Commissioners within three months are either to give assent, or to purchase the monument itself, or the power of protecting it. The amount of compensation is to be determined by the provisions of the Defence Act of 1860.

The expenses incurred by the Commissioners are to be paid by the Treasury out of Parliamentary votes. An annual report is to be made by the Commission. Power is taken for the transfer of the property in, or power of restraint over, any monument, to a local authority.

The above are the chief provisions of the Bill, which consists of twenty-one clauses. It will be observed that the class of monuments which, to the architect, as distinguished from the archæologist, possesses the highest value,—such structures as Fountains Abbey, Tintern Abbey, Bolton Abbey, and the like,—do not come within the purview of the Bill. This defect has been urged as an objection to the passage of the measure. A defect we hold it to be. But it is somewhat more than possible that the same persons who insist on that point would be only too ready to oppose the measure, if it had attained fuller proportions, on the ground of its very magnitude and comprehensiveness. We would sooner have the whole loaf; but that is no reason for refusing the half. Lord Elcho struck the true key in the debate on the second reading, which was voted, on the 14th of April, by 187 votes against 165. He would resist any invasion of rights of property; but maintained the principle that our ancient monuments ought to be preserved. Mr. W. H. Smith intimated that the Government were willing to confer with Sir J. Lubbock on the best means of effecting his object.

We have before now called attention to the fact that something like half the remains of Avebury, the noblest megalithic monument, unless the palm be given to Stonehenge, in this country, and one of the finest in the world, have been burned and beaten into fragments by the Wiltshire farmers since the time of Stukely. At Stonehenge the British snob is inscribing his name on the venerable trilithons. The utter barbarism of the English rustic in these matters would put any Italian brigand to the blush. There is no doubt that monuments, which as yet are more unplaced in historic date than is any extinct form of life in the palæographic chronicle, are daily disappearing. When we find members of Parliament attributing a magnificent relic like Stonehenge, bearing proof of the highest qualities of the architect, to a time when our ancestors were naked savages, it is tolerably clear that we cannot entrust the irreplaceable monuments of the past to the good sense of the public. The cry of "respecting rights of property" ignores all that gives its chief security to property.

It may be interesting to cite the relics named in the schedule. They are as follows:—In England and Wales, the tumulus and dolmen, Plas Newydd, Anglesea; the tumulus known as Wayland Smith's Forge, at Ashbury, Berks; Uffington Castle, Berks; Long Meg and her Daughter, near Penrith, Cumberland; the circle on Castle Rigg, near Keswick; and the circles on Barn Moor, near St. Bees; also in Cumberland. In Derbyshire, the Nine Ladies, on Stanton Moor, Arberlow; Hob Hurst's House, and Nutgall, near Bakewell; and Minning Low, near Brassington. In Glamorganshire there is Arthur's Quoit, in Gower. In Gloucestershire, a tumulus, at Uley. In Kent, Kit's Coty House, near Aylesford. In Northamptonshire, the Danes' Camp, at Hardingstone, and the Castle Dykes, at Farthington. In Oxfordshire are the Rollrich Stones. In Somersetshire, the chambered tumulus at Stoney Littleton, and Cadbury Castle. In Surrey, Cæsar's Camp, at Wimbledon. In Westmoreland, Mayborough, near Penrith, a circle of 100 yards in diameter, built of small water-worn stones; and the stones at Shap, which have been almost all destroyed since the time of Camden. The remaining monuments named are in Wiltshire, viz., Stonehenge, Avebury; West Kennet barrow, Silbury Hill; the Devil's Den, near Marlborough (where a dolmen only is named, but where exist the remains of a city, as is also the case at the unmentioned spot in the vicinity called the Grey Wethers); and Banbury Castle. The list is interesting from the proximity into which it brings these venerable relics, but is sadly curtailed. Many of us could extend it, from personal knowledge. We may name Englewood Forest; Aspatria, near St. Bees, where a gigantic skeleton was found in an inscribed cist; Mule Hill, in the Isle of Man; Pentre Ifan, Pembrokeshire; Park Cwm tumulus, Gower; and the Countless Stones, a monument near Kit's Coty House, before cited, in Kent.

The twenty-one relics named in Scotland are distributed through twelve counties. They include the vitrified fort on the Hill of Noath, sculptured stones, circular walled structures, cairns, rings, and mounds; a British walled settlement in Lauderdale, and stones with incised crosses at Laggangairn. At Glenelg and Mousa are towers called Pictish. At Menmuir the forts on the hills, called the White and Black Catherthums, are said to be British. In Ireland, the greater number of relics scheduled are earthworks. At Drumlogan, in the county of Waterford, is a cave containing Ogham inscribed stones. A monument called the Catstone is found at Rathconrath, in Westmeath. A similar name, the Catstane, is given to an inscribed pillar at Kirkliston, in Scotland. We have here but a nucleus, but it is a nucleus of irreplaceable importance. We earnestly hope that the frank and cordial aid of the Government may be given to a measure which, while it is an honour to its proposers to have brought it thus far, can hardly be brought to a successful issue, except under the sanction of the administration. The need of educating those who are not altogether of the humbler classes, as to the elements of national grandeur, was amply illustrated in the opposition raised to the second reading of the Bill.

CERAMIC ART IN REMOTE AGES.

THE LATE J. B. WARING.

WE have already mentioned, and we did so with feelings of regret, the death of Mr. J. B. Waring, in his fifty-second year. Mr. Waring, with much abillty and many acquirements, appears not to have possessed the faculty of success, and not long ago he published his autobiography with the view of proving to any who were interested that the blame was scarcely his own. "These memoirs," he said at the end of the book, "are not written, then, to blame others or to excuse myself;—the object I have had in view is to let others know, my descendants, and some, perhaps, who will be, or have been, my maligners, that I have done my duty in my profession, and have studied it as an art assiduously and to the best of my ability. My time has not been idly spent; and my engraved and printed works may, I trust, be of use to many students yet in the old world, and the new world also. Unto the world of art I now,—for a time at least,—say 'farewell.'" The final farewell came soon after.

His last work is now before us.* In this Mr. Waring's intention was to supplement the compilation of examples of the art of remote ages, which he had given in his previous publication on "Stone Monuments, Tumuli, and Ornaments of Remote Ages," by a collection, on the same principle, of all the varieties he could find or learn anything of, in the shape and ornamentation of the most ancient remains of ceramic art. In his short preface to this book, the author complains that his former work on the stone monuments was stigmatised as "not original," and while admitting that the materials for it were not new, and were necessarily collected from the researches of others, he gives a list of the results and suggestions derived from the consideration of them, which embody, as he says, "quite enough of theories to satisfy any ordinary lover of speculation." He himself speaks, however, of the present work as "a compilation," and while we think this is really the nature of its contents, we may say that the author, in his desire to repudiate the charge of want of originality, under-rated the value of a good compilation. The number of books and of museums which have to be consulted in order to arrive at a general knowledge of such a subject of archæological study as this, form a serious obstacle to those who wish to arrive at their information readily. In placing together, in one volume, a large number of well-executed representations of the types of ancient pottery that have been found, and in giving in a condensed form what has been said on their origin and relation to one another by the most reputed authorities, an important service is done to the large majority who cannot possibly study such a subject except at second-hand, from books and not from the objects themselves.

It is, therefore, in the numerous plates and the explanatory remarks thereon that the volume of this illustrative work on ancient pottery consists. The prefatory chapter on the subject generally partakes of what seems to have been an inherent defect in the author's way of writing; a want of clearness of aim and of continuity in discussing a subject. The opening paragraph in regard to the origin of Egyptian civilisation leads the reader to expect that the object of the book is to aid in elucidating this, but we hear nothing more of it; and after classifying Cisalpine pottery remains under the heads of Continental Keltic, Early British, and Teutonic (including Scandinavian), he does not offer us any distinct comparative statement of the characteristics of his three divisions, a great part of the chapter being taken up with considerations which seem to have little relation to each other, and to follow no logical order. As a compiler, in short, Mr. Waring was excellent and indefatigable; in proportion as he has quitted the work of compilation for that of authorship he seems to have more or less failed.

The illustrative plates, fifty-six in number (including the coloured title-page), are not arranged in regard either to identity of date or locality, but in regard to similarity of form and object. This arrangement brings out remarkably the universality of some types of ornament which are habitually spoken of as belonging to one particular people, but which seem to be here, there, and everywhere. Denmark and Assyria find place on the same page (figures 79, 80, and 86), in virtue of the exactly-similar employment of a kind of herring-bone ornament, with line divisions between, forming vertical stripes. A modified form of the Greek key-pattern, but quite similar in general effect, is shown on examples both from Denmark and Switzerland (44, 45, 46). A mode of decoration common to England and Wales and Switzerland, is formed by a zig-zag line with the triangular spaces filled up by lines drawn at right angles to one another in the alternate spaces. In no specimens of the most ancient pottery, except those of Greece, are figures to be found; the methods of ornamentation being reducible to two or three types; the zig-zag, the herring-bone, and the trellis, being the most common; the design being almost always in lines or bands either vertical or horizontal, and rarely occurring in a broken up or spotty form. The most important exception is the ornament produced by little raised knobs on the surface, of which several examples from Wiltshire are given on plate 21, and for which Mr. Waring suggests a Roman origin, as they were found in a district (Avebury) which has afforded "numerous and striking evidences of late Roman influence." We seem, in looking at these early pottery designs, to be contemplating what may be termed the first naked principles of decoration, such as might supply an initial chapter to a Grammar of Ornament. The work seldom reaches to the dignity of what can be fairly called ornament or ornamental art; but it presents forms and combinations of lines which are at the bottom of a good deal of the decoration that has been produced in the world. And this very fact might perhaps be adduced as a reason against crediting the theory of the former relation between countries wide apart in geography and in history, which these resemblances seem to justify. It is possible that the first elements of decoration of this kind have been evolved by different nations independently, and that they are the forms into which any primitive attempts at decoration, in the same material and the same class of objects, must more or less tend to resolve themselves. We do not suggest this as either the necessary or the most probable conclusion; but as one so far to be taken into account as that we should not too hastily conclude an identity of race, or a special intercommunication, between remote nations whose remains leave us decorative features common to both, unless these are of a more advanced and artificial type than any which ancient pottery shows.

We may even extend this caution to the deductions to be drawn from the universal employment of symbolic signs, as well as of mere ornament. Mr. Waring has devoted four chapters in this book, and twenty-one plates, to the illustration of the use of the circle and ray symbol, the serpent, and the peculiar form of cross which has been called the *fylfot*; and his illustrations give remarkable evidence of the extent to which the same class of symbol was in use, almost, as far as we can discover, throughout the whole of the antique world in the later prehistoric periods. But the circle and ray ornament is so directly suggested by the sun, naturally a common and universal object of admiration and adoration in the childish age of mankind, that it may almost be looked upon as a natural rather than an artificial symbol; one which races perfectly unconnected with each other might independently fall into the use of, their respective forms of the symbol merely differing in accidental points. Besides, there are a hundred objects in nature which suggest the form of radiation from a centre (always a common element in decoration); and the matter of surprise would be, not that two races should independently hit upon it, but that any should miss it. The case is different with those which are decidedly artificial symbols; marks arbitrarily chosen and invested with a special meaning. The use of such marks among people apparently widely separated from each other points to a common origin and common tradition. We should, therefore, attach much more significance to the employment of the *fylfot* symbol by different nations, than to the use of such a natural symbol as the circle and rays. To the symbol in question (which we may remind our readers is a cross with equal arms and a right-angled return at the extremity of each arm) Mr. Waring has devoted four pages of illustrations, and it is noticeable that this symbol does seem, in the most ancient period at least, to be confined to what is now recognised as the Aryan division of the race; in Egypt, for instance, rich as that country is in symbolic devices, the *fylfot* cannot be traced, except in one doubtful instance (given in plate 41, fig. 3), probably an accidental coincidence of form. But it occurs continually in India, in Greece, in Asia Minor, in Roman remains in various places, in North Germany, and in England probably by derivation from Rome. We are not aware of any instance in Ireland, and Mr. Waring seems to have heard of none; an omission which is, of course, in accordance with the Aryan view of the symbol. Whether all can be derived from it that our author derives is another question. He gives it as the origin of the Greek fret, one form of which includes the exact shape of the symbol, no doubt, but the connexion between them can hardly, at any rate, be so direct as he assumes. That a symbol which has in one age obtained wide acceptance as a mystical sign should be subsequently repeated as an ornament, without reference to, or even knowledge of, its original meaning, is, however, a common phenomenon; and the repetition of the symbol in English remains down to the Mediæval period is no doubt to be regarded in this light. We have exactly parallel cases in modern times, in the frequent employment of obelisks, for instance, as memorials, by persons who never heard of the phallic origin of the form, and would not employ it if they had; and a still more parallel case, perhaps, in the constant use of the form called the *vesica piscis* in Gothic ornament, the original meaning of which is quite unsuspected by the clerical and architectural *dilettanti*, who delight to see it everywhere. The latest and most noted legacy of the *fylfot* to modern times is in the symbol or "arms" of the Isle of Man; the three-legged device, which is a modification of the four-armed *fylfot*, and which the members of the "House of Keys" may be surprised to learn is found on ancient coins of Asia Minor and Macedonia in almost precisely the form stamped on their seals.

In speaking of the zig-zag and what we have called the "herring bone" ornament, which is illustrated in various ways on plate 45, we think the author has again attempted to give too distinct a symbolic meaning to a combination of lines which would necessarily present itself as almost the first and readiest way of producing a rude and simple ornamental effect. The use of the zig-zag as a representation of water we call a natural, not an artificial symbol; it is, in fact, simply the surface line of rippling water, represented in a conventional manner, but sufficiently realistic to be at once recognised.

The book is one which should be in all libraries, and will be very useful as a compendious reference for information and example. As the author more than once in the course of his remarks, has expressed his dislike to theories, it is perhaps to be regretted that he devoted space to theorising in obedience to what he seemed to think was expected of every author upon subjects of the kind which he took up in this and the preceding volume. His theories, however, if a little far fetched, may prove suggestive, and at all events in no way impair the real usefulness of his work.

* Ceramic Art in remote Ages; with Essays on the Symbols of the Circle, the Cross and Circle, the Circle and Ray Ornament, the Fylfot and the Serpent, showing their Relation to the Primitive Forms of Solar and Nature Worship. By J. B. Waring. London: John B. Day.

"MODERN ARCHITECTURE AND ITS ASSAILANTS."

UNDER the above title, the *Edinburgh Review*, in the guise of an article on Mr. Fergusson's second edition of his "History of the Modern Styles of Architecture," and Mr. Eastlake's "History of the Gothic Revival," devotes some space to what is, in fact, a refutation of attacks recently made (and of which enough, and too much, has been said) upon modern architecture, by what the *Edinburgh* critic describes as "the connected efforts of a small but noisy party of dissatisfied men." It is gratifying, at least, to find a leading literary organ treating the subject of architecture, if not with great novelty, in a calm and judicial tone, free from the acerbity and bitterness which seem inseparable from the subject in some quarters, and free also from (what is equally annoying to sober-minded professional men) the exaggerated cant and pseudo-eloquence with which the subject is too often rather disfigured than illustrated by indiscreet panegyrists of their art.

After some well-put remarks in regard to the durability and interest of architecture as an historic record or expression of national feeling and character, the *Edinburgh Reviewer* proceeds to vindicate, in moderate and well-considered language, the necessity of study

and culture for those who would work out this art, or combined art and science, as he rightly terms it; and in alluding to the graphic origin of architectural design, he points out that though it may be possible to construct a building of considerable size without complete or adequate drawings, "to attempt to do so is only to work under unnecessary disadvantages; to augment cost, to protract delay, and to transfer to every step of the actual construction that tentative process which the competent architect has carried out, in the most convenient and efficient mode, by the proper use of the drawing-board,"—an argument which is certainly not necessary to our readers, but which we are glad to see succinctly and clearly stated in a literary periodical for the enlightenment of the public who have had so much dust thrown in their eyes of late. The critic is equally in the right, as all who can speak from practical experience in such matters know, in his observations on the proposal, "which has been made, as if it were a wonderful discovery," to substitute models for drawings; in other words, "to substitute a more tedious, costly, and inexact process for one which has attained a high degree of perfection." The proposal, as is remarked, really means that certain people, including a large proportion of those who employ the services of architects, cannot, or rather will not, take the trouble to understand drawings, which, nevertheless, are a much more certain and adequate method of exhibiting a building than a small model, which, in regard to the general effect of the finished structure, is in fact one of the most deceptive things possible.

Of the absurdities, the contradictions, and the really impudent mis-statements which a contemporary of the *Edinburgh* has lately given currency to on the subject of modern architecture, we do not think it worth while to say another word, merely remarking that they receive due recognition at the hands of our present critic. But we cannot forbear quoting the general remark with which this portion of the subject is introduced, giving as it does a slightly different ground of complaint from that which the purely professional mind would take:—

"It is with unfeigned regret that we have seen in the pages of a contemporary, whose traditional character was wont to be wholly conservative, not only one but a series of essays, which respect for our readers forbids us accurately to characterise. Taking modern architecture as a text, they assail, in the same unhesitating manner, almost every name, ancient or contemporary, which has had the disadvantage of provoking citation. Nor are architects alone the subject of abuse. English law and lawyers, the tenures of land, the rights of property, come under the same ban; while the art, the science, and the welfare of the future are referred to the imaginary guidance of the inspired workman. Such pages are not amongst those to which a serious reply is given. But, on the part, not of architects or artists, who may rest contentedly in the company with which they are ranked, but of the higher and graver literature of the country, *and of the moderation of tone which is an inseparable element of gentle breeding*, we deplore the application of pages which were wont to be critical, demonstrative, or imaginative, to the reception of sensational writing of the least profitable order. Men of letters, and all who appreciate the part which men of letters take in the progress of civilisation, have reason to view with grave disquietude the strange faces which have been lately suffered to gesticulate from the tribunes of periodical literature. . . . We cannot but regard it as below the dignity of serious literature to defend the architecture or the architects of the present day against an attack, which so impartially bespatters all that is elevated or traditional in art. We can only express the perplexity we feel as to the cause which can have induced our respected, and once conservative, contemporary to give publicity to essays so germane to the ideas of the International that they seem actually to smell of petroleum."

In discussing the probable results of self-taught art, and of the abandonment of a high and systematic culture for the impulses of the mechanic, the reviewer brings forward as an instance the sculpture shown at the Workmen's Exhibition at Islington in 1871, and spoken of by us at the time. A lesson of great value might be drawn from these sculptural exhibits. "They represented, in some cases with extreme fidelity, the misshapen forms with which we are familiar in some of the rudest ornamentation of the capitals of columns in our round-arched churches. Artists know the style of treatment to which we refer,—the long, ill-formed nose, the unmodulated chin, the fish-like eye, the mouth opened as if by a chisel." After pointing out some of the causes of these shortcomings, the writer continues, "brought face to face with the best product of the workman's imagination, we see everywhere the disadvantage of want of study; nowhere the heavenward bound of original and commanding genius. The Royal Academy may not be all that we could desire. Still, there is, occasionally, sculpture in the Rotunda. There was nothing but stone-cutting at Islington."

For the reasoning of the *Edinburgh* critic against the desponding tone, in regard to modern architecture, of such critics as Mr. Fergusson (whom, however, we need hardly say, he treats with the greatest respect), and for the grounds of his conviction that some real vital causes have underlain the extraordinary energy with which the craft of the builder is being carried on in the present generation, we must refer our readers to the Review. The writer overstates the impossibility of the adaptation of Italian architecture with success to our climate; and his reference to the "removal of the Quadrant in Regent-street," as a practical example of the unfitness of a modification of classical architecture for our civic buildings, conveys, in the form in which it is put, the notion of an odd mistake; we presume the writer refers to the removal of the colonnade,—a clearance, however, which we always understood to have been made for other reasons than merely the architectural ones of convenience and light. The reviewer concludes with a quotation from our own columns in support of his general views, and we are very willing to be cited as evidence by an advocate whose serious, temperate, and dignified tone does credit to the cause which he upholds.

THE INSTITUTE OF PAINTERS IN WATER COLOUR.

In alluding to the winter exhibition of sketches in the Gallery of this Society a little while since, we expressed the opinion, while recording our admiration of the high character of much of the collection, that the sketch exhibitions in this Gallery were of higher artistic interest and value than the annual exhibitions of finished drawings, inasmuch as they displayed a broader style, and less of merely manipulative excellence. The spring exhibition of this year, opened last Monday, emphatically bears out this remark. Once more we meet, in the works of certain old contributors, with the same tricks of effect which we seem to know by heart, and which are repeated with such similarity every season that it is difficult to distinguish one drawing from another in the memory. We find in a large proportion of the landscapes here a high degree of skill in manipulation, a great power over certain effects, but unaccompanied by any distinct feeling or sentiment, or any evidence of original thought on the part of the artist. Good as the work is, of its class, we must be pardoned for saying that such productions as those we refer to may be termed drawing-masters' rather than artists' art. We do not say there are not very fine exceptions, but there is far too much of the excellence of mere habit. To take one of the best of this class of drawings, bearing a name which we cannot wish to speak disrespectfully of, let us ask what is the gain to any one from such a drawing as Mr. Rowbotham's "Island of Ischia"? It is beautifully executed in its way, no doubt; but do we not know every tint and tone in it, by repetition after repetition, in drawings which are chromolithographed from for the instruction of students? However good a receipt may be, we cannot be asked to accept the same thing over and over again in this way without feeling dissatisfied. In considering the figure-subjects, here, too, we cannot but regret the low tone of feeling which pervades many of them,—the total lack of interest in the subjects. "Dangerous Quarters" (43), for instance, by Mr. H. B. Roberts, is a large and very carefully executed drawing, representing a lout of a boy plucking a duck, and grinning mischievously at the sight of some survivors of the species poking their heads in at the door. The utter poverty and vulgarity of the joke (for we suppose it is meant for one) is positively depressing to the spirits, considering the pains which have been expended on elaborating it; and the same might be said of other drawings by the same hand. We cannot felicitate Mr. Absolon this time, either, upon his "Boulogne Shrimpers" (140). An interesting and novel production is that of Mr. Tenniel, "Lighting the Beacon," and wonderfully clever as a piece of effect, and in drawing. Mr. Jopling's "Merry Wives of Windsor" (107) is a record of a very charming *tableau* once presented at Cromwell House.

The highest-class figure-drawing in the room, which indeed stands alone in the collection, is Mr. Linton's "The Appeal" (32),—a work which the artist has rarely if ever surpassed. The story is not quite distinctly told; but it was perhaps intended to leave something to the imagination. At any rate, there is in this work a touch of poetic spirit; we are incited to imagine the history of these three figures, so distinct in character, so well contrasted in their attitudes and emotions. The composition is very simple; to the left an old man of the puritan type, evidently in authority of some kind, turns away sternly and impatiently from the appeal of a young cavalier, cloaked and rapiered (if we may so put it), who holds out a pen with a request for a signature to some document of vital importance, while a female seated on the right, cloaked from head to foot, looks on with suspense and anxiety well expressed in her clasped hands and face turned fearfully towards the other two. A wall forms the background to the greater part of the picture, connecting the group, and, by its light tone, giving force and depth to costumes in which scarcely any strong colour is employed. The manner in which the cloak of the centre figure, and the shadow cast by it on the wall, are made use of to give added breadth and dignity to the composition, is as successful as it is unobtrusive.

The most important figure-subject, after the above-mentioned, is Mr. Valentine Bromley's representation of "The Big Chief's Toilet" (5); the said chief reclining lazily on the ground while his squaw plaits his hair. The red blanket, and other appurtenances of the chief's costume, are finished with great power and brilliancy, worked in with thick masses of body-colour; the group of squaws in the background, however, strikes us as the most successful part of the drawing as to character. Mr. Staniland's group of emigrants, "The Last Day in Old England" (182), is a too palpable imitation of a manner invented by another artist; there is humour and feeling in it, and good solid merit of execution. Mr. Cattermole's "The Monk and his Scholars" (155) and Mr. W. Small's "Irish Market Folk" (38), are two powerful drawings in very opposite styles; that of the former is too well known to need description; the latter drawing is forcible, to the verge of coarseness, in style of execution, but the faces,—that of the old woman especially—are full of character, and very powerfully depicted.

We noticed, in the recent winter exhibition, a fine coast scene, by Mr. Collier, as one of the best works there. The same position is occupied in this exhibition by his drawing, entitled "Arundel" (154), one of the few works in the room which shows something of the freshness of feeling, and the power and the breadth of style of the old school of English water-colour. We look from an undulating foreground of open down across the dark masses of wood which surround the castle and form the middle distance, to a distance shadowed by clouds, and broken by a winding river; the concentration of feeling, and the freedom and directness of the mode of execution, deserve the highest praise; it is a work giving the impression of completeness and unity which shows that the artist has grasped his subject as a whole, and with a distinct motive in his treatment of it. With a very different method of handling, Mr. Hine's well-known down scenes belong to the same class: he has made this subject his own, and does not vary it much; but the innate feeling of his drawings, and the careful study of nature evinced in the delineation of the aërial perspective and foreshortened curves of—

"The long backs of the bushless downs"

(as Tennyson phrases it), raise these works quite above the charge of mannerism. Mr. Orrock, who seemed to promise a style of his own, with a danger of mannerism, in the last exhibition, we are glad to see apparently getting more of the style, and less of the manner; his several works here will repay looking at. Mr. Oakes's "The Welsh Border" (121) is a fine work, unusual in the tone and treatment of the foreground, and not without a kind of reminiscence of Turner in the middle distance effect. The contributions of Mr. E. M. Wimperis, especially "A Breezy Day" (28), which quite bears out its title, are excellent in style and feeling; also Mr. Syer's "near Barmouth" (145). The scenes near Rome by Mr. F. T. Skill, should be looked at, though "Yellow Tiber" (1) strikes us as rather a cooked effect; "On the Pincian,—Morning" (48), is a work of much merit. Messrs. Hargitt, Mogford, Harry Johnson, and other well-known "old campaigners" of the Institute, are adequately represented in their respective styles. Mr. Edward Fahey sends a highly-finished head (127), and Miss Elizabeth Thompson contributes a drawing of a mounted trooper (243), slight, but full of life.

THE CHURCH OF ST. FRANCIS, ASSISI.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

AN ordinary general meeting of the session was held on Monday evening, the 19th inst., under the presidency of Sir Gilbert Scott.

The President stated that he had received a letter from Sir Thomas Biddulph, expressing her Majesty's approval of the award of the gold medal of the Institute to Mr. Edmund Sharpe, who had written to the council acknowledging the pleasure he felt at the high honour conferred upon him.

Mr. Thomas Morris referred to the demolition of the Colosseum, Regent's Park, which was now in progress, suggesting that photographs of it should be taken. The architect was Mr. Decimus Burton; but the name, the Colosseum, was somewhat inappropriate, for the building was rather a reminiscence of the Pantheon, and it combined the majesty of the Parthenon with the superb outline of the Pantheon.

Mr. Cockerell, in allusion to a question asked by Mr. W. H. White, at the previous ordinary meeting, as to the reason of the frequent absence from his post of the hon. secretary for foreign correspondence, protested altogether against such a question having been asked, or against the principle that the officers of the society were to be responsible to individual members for the manner in which they performed their duties. He did not resent the question personally, but in his capacity of hon. secretary.

The President thought the hon. secretary gave all the attention that could be expected to the business of his office, considering the extent of his engagements, and observed that he had been present in person at the larger proportion of the meetings.

After some remarks from Professor Kerr, and one or two other members present, the subject dropped; Mr. White expressing, however, his regret that he had received no answer to his question.

Mr. R. W. Edis wished, subject to the permission of the president, to put the question whether two published lithographs which he had seen accurately represented the first and second premiated designs in the Soane medallion competition; and, if so, on what grounds the first premium was adjudged?

The President ruled that it was impossible to reopen such a question when the Council had considered the designs, and their decision had been acquiesced in by the general meeting of members. If they were to admit the principle that such a matter was to be gone into over again, at the instance of any member, who might perhaps be a friend of the less successful candidate, they could never get through their business at all.

Mr. J. Beavington Atkinson then read a paper on "The Church of St. Francis, Assisi." He commenced by stating that he proposed shortly to indicate dates, structures, and styles of the lower and upper churches at Assisi, by way of a reminder merely, in order that more space might remain for some account of the present state of the building and the nature of the restorations therein, as witnessed by him during last autumn. They all knew that the double or triple church of St. Francis held a commanding position. The city of Assisi, in common with the neighbouring towns of Spoleto, Spello, Trevi, Cortona, and Perugia, was planted after the habit of the ancient Etruscans, on a spur of the Apennines; and the geographical and geological, not to say the military, condition had naturally influenced architectural construction. Thus the site chosen for the united churches and monastery fell so abruptly and rose so considerably as to give to the arched basement on the one side the magnitude and elevation of a fortress while on the other the level of the floor of the upper church was the same as that of the grass-grown piazza. The difficulties of the ground, as often happened, were made to enhance the picturesque effect. In no other country in the world did the forms of outward nature lend themselves so kindly to the exigencies of structural and decorative art. The Lower Church was commenced in 1228, and finished in 1234; the Upper Church did not reach completion till 1253. The architect was a German, called by the Italians Lapo, with whom seemed to have been associated an Italian monk of the order of St. Francis, Fra Filippo da Campello. In his (the speaker's) recent tour, he had been again struck with the abundant and luxuriant growth of the pointed arch and its cognate ornament; not as an exotic, coming from afar, but apparently as much at home and acclimatised as the acanthus,—not employed for architectural purposes only, but entering into the structure of humble dwellings in the narrowest streets,—not established at great centres and chief capitals, such as Florence, Siena, and Orvieto, but finding a footing in the outlying towns of Spello, Citta di Castello, Borgo, San Sepolchro, Assisi, and Urbino. In this complex Italian development, the churches of St. Francis and the sister church of Sta. Chiara, at Assisi, stood as early and simple examples. It had been truly said that Assisi was as a light set on a hill for art no less than for religion. Gothic architecture, with kindred pictorial decoration, became from this centre diffused over the hills and the valleys of Central Italy. The Lower Church was cavernous and crypt-like. The columns in the nave were of single massive shafts, as in the Norman style of England, or the transition from the Romanesque to the Gothic in France. The arches and vaulting between these stunted columns were round, with possibly a slight aspiration here and there, according to the spaces spanned, to a point. These columns, which now stood at the entrances to the side chapels of later date, were continued to the Upper Church, where they serve as external buttresses,—anomalous and decorative. The Upper Church soared into the sky in contrast, and yet no discord with the Lower. It was as a lantern rising out of a crypt; it was full of light, and spoke, as it were, of the resurrection, after the sepulture. The semi-detached columns at the transepts divided into clusters; the vaulting of the elementary form of a rectangular space, with diagonal ribs, was fairly lofty, compared with the width of the floor. Here, in the upper church, the forms exchanged strength for elegance; and the colours, enlivened by a flood of light, were joyous. Judging from internal evidence, there would seem to be a development in style more than correspondent to the difference of twenty years in the date. He did not know of any record of change in the design during the progress of the work, and the two structures were not without unity. The apse especially was in accord in the two churches. The vestibule and most of the side chapels to the lower church were appended during the last quarter of the fifteenth century, yet some must be earlier because they still preserved on their walls pictures of the fourteenth century. It had already been stated that an Italian architect shared the work with a German,—a fact which might the better account for certain accommodations of the Northern Gothic to Southern and Italian treatments. This was seen in the surrender of mouldings, surface panellings and details, for the sake of large unbroken spaces, reserved expressly for frescoes. Assisi was rather an ultra example of how light and shade, form and proportion, might be made the servants of painting. In directing attention to those recent and radical changes, which had provoked a storm of criticism, he would say that the purpose of the work undertaken must be said in general to be to reinstate, as far as practicable, the lower and the upper churches to something approaching their original integrity. The perilous operations had been fortunately entrusted by the Italian Government to Signor Cavalcaselle. Beginning with the exterior, the first object had been to place the building in safety. Thus the roof was made sound, the buttresses were strengthened, crevices in the stonework stopped, so as to prevent the rain from penetrating through the walls to the back of the frescoes. With regard to the Lower Church, the clearances had been effected with so strong and swift a hand that priests and people were alike taken by surprise. Thus, during a single night, a staff of twenty or more men made a clean sweep of wood altars, Rococo carpentry, and gimcrack ornaments, much to the consternation of the monks, who came in the morning as usual to say mass. By this bold stroke of business light was let in at darkened windows; frescoes by the dozen were made to look out once more from walls long masked; and the stone-altars, before which the immediate followers of St. Francis had worshipped, being disencumbered from impertinent excrescences, again stood out in their original moderation and simplicity of proportion. The following was an abridgment from Signor Cavalcaselle's official report to the Italian Government:—The iron enclosure round the high altar in the Lower Church had been, for historic reasons, removed to its original position at the high altar of the Upper Church. An iron railing or low screen had been placed between the nave and the presbytery of the Lower Church. The singing-gallery and organ had been taken away from the apse and east end, thereby were revealed frescoes before hidden, and also the wooden choir of 1471. The huge marble altar on the west wall of the north transept had been cleared away, whereby the immense Crucifixion, by Pietro Lorenzetti, which covered the greater part of the wall, was brought to light. From the opposite transept had been removed the altar of gilded wood, which covered half of Cimabue's noble fresco of the Madonna, Child, and Angels. From the chapel of the Orsini had been taken a marble altar, whereby was discovered the sepulchre of Cardinal Gaetano Orsini, together with a fresco. In the chapel of St. Antonio Abate were discovered two sepulchral monuments of Blaise, Duke of Spoleto, and his son. The painted windows now once more served the purpose of windows, lighting up the darkness of this grand, though gloomy interior. With regard to the changes in the Upper Church, Mr. Atkinson went on to say they had been analogous to those in the Lower, though, in the absence of side chapels and side altars, they could not be identical. Careful consideration had been given to the original level of the floor of the nave, and the conclusion come to was that there was a rise of three steps between the nave and the presbytery, that subsequently the nave and the door on the west were placed on a higher level. The elevation of the floor necessarily threw additional weight on the Lower Church, but the massive columns were sufficient to sustain the further burden. Of the strength of the vaulting it was not so easy to speak, as the surface was disguised pictorially. The most important alterations in the Upper Church had been in the transepts, apse, and the high altar. From the west walls of the transepts had been removed two painted wooden altars, of corrupt design. The result was the uncovering of two frescoes of the Crucifixion. The radical reformation had been the withdrawal from the apse and transepts of the intarsia Coro of the sixteenth century, executed by the well-known worker in wood, San Severino, of Florence. This uncompromising measure provoked more opposition than any other of the recent changes. This coro no doubt was an intrusion, but yet it formed an imposing piece of church furniture, and its removal, though revealing frescoes, left the east end of the church bald and desolate. Signor Cavalcaselle defended the proceedings, stating truly that the structure was ill-suited to the position; that the style was cinque cento; and that, with the exception of the figures in the tarsia, the execution was rude. The Papal Throne, in the centre of the apse, was examined. The original simple structure had been tampered with, the level having been raised from two steps to five above the floor, and a semi-classic canopy, supported by columns on false bases, had been added. This canopy was removed. One important advantage accruing from the removal of the encroachment of the large wooden stall-work, had been the needful space gained for the restoration of the high altar to its original position, immediately under the transept. The altar had been thrust down into the nave to make way for the increased dimensions of the choir. In its present position it stood immediately above the high altar in the Lower Church, which in turn was directly over the tomb of St. Francis in the Crypt Church. With regard to the transfer of the enclosure of ironwork from the high altar of the Lower Church, Signor Cavalcaselle considered that it was made for the upper altar, and had been wrongly removed to the lower in the sixteenth century. This iron enclosure underwent many alterations, and bore the sign of at least two dates,—the earlier was of the first half of the fifteenth century. Some additions were of the second half of the sixteenth, the period of the stall-work removed from the upper apse. It might seem an anomaly that the wood-work should be removed while the ironwork was restored, but the excuse was, as before said, that circumstances suggested, if indeed they did not impose, a compromise. Respecting the question of an ancient marble coro, Signor Cavalcaselle, in his MS. report, wrote as follows:—"Observations made on the spot demonstrate that originally the coro was composed of a marble enclosure, which separated the nave from the transept, extended along the walls of the apse on either side of the Papal chair, and enclosed in the centre the high altar with the tabernacle." Foundations had been discovered, which led to this conjecture. Signor Cavalcaselle argued that as the original

plan of the church was German Gothic, with the form of the Latin cross, this coro could not have been contemplated in the first design; then it came as an after-thought, in course of the construction consequent on the decree of Gregory IX., in the first half of the thirteenth century, which made the church of St. Francis a Papal Basilica. Accordingly, the Papal throne was placed in the centre of the apse, and the coro raised two ambones; but it existed nearly three centuries from the time of the completion of the church, in 1253, to the first transformations in the early part of the fifteenth century. The first transformation, in the fifteenth century, consisted in the breaking up and scattering about of the marble coro, and in the substitution of a smaller choir, probably of wood, and occupying only the apse; also in the removal of the original altar, and the substitution of a larger one, with iron throne. This state of things lasted about a century and a half,—that was, from the early part of the fifteenth century down to the end of the sixteenth, when the second transformation occurred, consisting in the breaking up of the choir of wood in the apse, the substitution of the intarsia stalls of San Severino, the consequent removal, in order to gain space, for this large mass of woodwork, of the high altar from beneath the cross of the transepts to the first bay of the nave; and, finally, the transposition of the iron enclosure from the Upper to the Lower Church. This second transformation gave to the internal arrangements the aspect preserved down to the present day. The third and last transformation was, of course, manifest in the restitution now in progress. The evidence of the existence of the marble coro was as follows:—First, foundations found beneath the pavement; second, the existence of sundry marble slabs, decorated with mosaics inserted in the pavement, found attached but not belonging to the pulpit in the nave of the Lower Church, and to the wall of the Pontani Chapel; these marbles corresponded in size with the unclothed wall spaces on either side of the Papal throne; third, the small pulpit of stone now attached to the shafts of the clustered column at the angle between the nave and the north transept. The column had been chiselled away to admit of this addition, and the little staircase leading from the sacristy below was also subsequent to the original structure. Apparently, the date was of the fifteenth century, the time of the breaking up of the marble coro. The pulpit, very lovely in its proportions, was supposed to be one of the two ambones of the choir. Fourth, the existence in the church of Sta. Chiara, in Assisi, of a similar choir of the almost synchronous date of 1257, design of Fra Filippo Campello, who also worked at the church of St. Francis. Fifth, a fresco by Giotto, in the nave of the Upper Church, depicting the saint instituting the representation of the Nativity. The scene was laid in the interior of a church, wherein appeared a coro of marble, with a pulpit or ambone, and stairs corresponding to the supposed arrangements in this Upper Church. In the picture, the part in which the second ambone would come happened to be cut off from the composition. Another fresco in the nave introduced a like marble coro. The whole of this difficult problem Signor Cavalcaselle summed up as follows:—"Such being the results of the observations made, the natural wish would have been to reduce the work to the integrity of its primitive form, and, with this end, to dispense with the iron enclosure; to make in the altar and papal throne radical restorations; to set up again the marble coro; in short, entirely to re-arrange the transept and apse." But to do this, he said, would be absolutely impossible, and therefore it had been thought better to take the middle course,—an accommodation to existing circumstances which Mr. Atkinson had attempted to explain, if not to justify.*

Fall of a Stand and Thirty Persons Injured.—The Queen's Park Recreation Grounds, Bridgeton, Glasgow, were opened on Saturday last, but the proceedings were brought to a sudden close in consequence of an alarming accident. Seven thousand persons had paid for admission, but shortly after the sports began as many more forced their way in without payment. The result was that a wooden stand, 90 ft. long, was eventually crowded by 1,500 persons, and fell with a crash. Thirty persons were more or less seriously injured, but none fatally.

* To be continued.

"QUEEN ANNE" AND THE GOTHIC REVIVAL.

ARCHITECTURAL ASSOCIATION.

At an ordinary general meeting of the session, held on Friday evening, the 16th inst., under the presidency of Mr. Birch, Mr. Frederick Davis was elected member.

A vote of thanks was passed to Mr. Chatfeild Clarke, for the facilities he afforded to the members on the occasion of their recent visit to the buildings in Lime-street.

Mr. Flint Clarkson (secretary) announced that the office of honorary registrar had been accepted by Mr. Watson, *vice* Mr. Quilter, who had formerly so efficiently discharged the duties appertaining to that office. With regard to the next visit, Mr. Clarkson said that arrangements had been made which would enable the members to visit the Alexandra Palace this day (Saturday).

Mr. Hugh H. Stannus then opened the adjourned discussion on "Queen Anne and the Gothic Revival." After a few introductory remarks, he said that at the conclusion of the paper recently read before the Association by Mr. Ridge, it was stated that "Queen Anne is dead," which Mr. Stannus took to be Mr. Ridge's verdict; but this statement, though somewhat epigrammatic in character, was not in consonance with facts, and it was to this remark Mr. Stannus wished to take exception. Mr. Ridge had spoken with regard to the Classic manner of building, and had gone out of his way to refer to the Roman and the Classic people generally, giving the meeting a specimen of the art of rewriting history. With respect to the recipe for a Classic building, they were to take a colonnade, invented by heathens, and apply it dishonestly to a wall, and were then to cut holes in the walls at symmetrical but inconvenient places, and poultice the rest of the wall with cement, &c. The recipe, too, for a Gothic building was, according to Mr. Ridge's authority, that they were to take the details, invented by Christians and emancipated workmen, and mix them well with true principles, and apply truth, piety, love, reverence, &c. Mr. Ridge had alluded to columns in Roman architecture being put in front of piers, not for the purpose of support, but for decoration, or, as vaulting shafts were in Gothic Cathedrals, to support in appearance though not in construction. Mr. Stannus supposed that Mr. Ridge alluded to the Basilica of Maxentius, A.D. 307, for this was identically for the same purpose as vaulting shafts in Gothic architecture. The Roman temples certainly were columnar, because they were derived from the Greek. The Romans were not a religious people; they took their religion from the Greeks, and they, therefore, took their arches from the same source, because they were partly religious. The Romans were celebrated for their aqueducts, which were typical Roman remains, one of them being forty-three miles long. Any one who had a sight of these dreary buildings would, in his opinion, never forget them: they were arched, and there were no columns about them, and were common-sense good architecture. He believed the Italians followed the Romans in architecture; for in Florence and elsewhere there were no columns at all to be met with, and the buildings were properly constructed. Of course, columns had been used, and very much abused, in façades; and he ventured to think that Mr. Fergusson who was continually condemning columns, was worthy of the name of a classic scholar. With regard to the true Gothic principles, they all knew what a boast the Gothicists made of them. He believed that it originated with the elder Pugin; but this continual boasting appeared to Mr. Stannus like a man who was always saying he was a straightforward man, and putting out his honesty to give it an airing. He considered that those who practised in the Gothic style were mild bigots, and were men with only half a truth. They were like teetotallers who did a good deal of good in drawing attention to the evil of drunkenness; so preaching Gothic did good in drawing attention to bad construction. The Gothic style had done its share of good in the world, like those men who had contributed some sterling gift to keep the lamp of learning alight in rude and barbarous times. The man who could conceive that grand poem, Salisbury Cathedral, and the man who poured forth his soul in stone, in the creation of the tomb of Archbishop Grey, in York Minster, and countless other buildings, had helped to make the world richer and better than it was found. Such men lived in rugged times, and their struggle against the forces of nature was far harder than now; but it was rugged and barbarous along with its honesty, and if they could have the latter without the former, it would be as well. Every one tolerated teetotallers as well-meaning persons, but when they advanced from moral suasion to the Permissive Bill, it was time to stop their aggressive bigotry. So with the Gothic school, there was a time when this school was young and earnest, but now they silenced every one, and he thought it time to interpose argument against the sweeping condemnations so general.

The Classic style was objected to because of the balustrades at the tops of the buildings; but he had seen battlements at the tops of buildings which were as objectionable as balustrades. Clustered piers were objected to in Classic, but in the Gothic they had the vaulting shaft. With regard to inconsistency in Classic, he thought that that term was also applicable to Gothic in the arched mouldings, which destroyed the solidity of the wall. Another point was the crockets, which appeared to him to waste the stone, and did not appear to grow properly out of the construction. But as long as a man built for himself, he would build in a common-sense manner. It might not be architecture, but it would be good building; but when a man became conscious that his neighbours were criticising him outside, he became painfully conscious of "Mrs. Grundy." It was the same with regard to dress. If a man lived in the Great Desert of Sahara, he would wear only what was comfortable and appropriate, for he would be unconscious of critics. In contradistinction to these evanescent phases of style, there were certain eternal fixed principles of plan, construction, and use of materials, which were common to all architecture, which were indeed the nucleus of architecture. He wished to impress upon all architects the fact that the principles of common sense and fair use of everything were the centre ground, common to all good styles, and that the details and other husks of fashion were merely minor things. Neither, in architecture, any more than theology, had any man a right to say he had the whole truth. That theological opinion was true to a man which helped him to rise higher; and that style in architecture was right in which he could express his ideas honestly and simply. The moral was, that whatever fashion a man added to the simple nucleus of common sense should be the best of its kind, good, appropriate, and pure, developing the spirit of the old work in that fashion. As an example, he (Mr. Stannus) would instance the French style called "Neo-Grec." He believed that style in architecture, as well as in dress, was identical, and thought that there would be a time when all the buildings of a civilised country would be constructed in the same style as the law of progress had altered it. He did not think that architects should change with the fashion, and, after having built a Gothic church, and an Italian villa, erect an office in the Queen Anne style. He thought that a man should choose a style and stick to it, as a barrister selected his circuit. The style which he objected to more particularly was what he would term "hodge-podge" or mystic style, in which there were errors of grammar and irregularity of detail; still, as at present practised, and until it was made purer, the Queen Anne style was good as far as the Classic architecture was concerned, and bad as far as free architecture was concerned.

Mr. Seddon stated that Mr. Stannus had said that a man should choose a style and keep it pure; but to this he took exception, not so much as a bigot, but on the ground that he did not admit of there being two styles at all. He did not think that Gothic and Classic were in opposition. The Greeks evolved their style from the heterogeneous elements which were to be found in the East from the Egyptians and the Persians; and there was nothing about them to call a style and which developed into the Doric, and they might almost worship that style; it was their fountain of beauty; it was their study. With regard to the Queen Anne style, there appeared to him no point of merit or interest in it, which was original or true to style; there was no style about it. The most desirable things were the more practical fulfilment of domestic wants, and a fine delicacy of ornamentation, which were not obtained in Queen Anne's time. It was the revival of a desire to obtain notoriety by any means, honestly, if practicable; but certainly by any means. "Free Classic" was a bad name for it, as Classical was already free, and licensed

to be false to torture materials into absurd and fantastical form, to practise on the credulity of the public. The simple question was, What was right, and what was wrong? Let them not go back to Queen Anne's time, but to the time whence that style was derived, and whither should they go but to Gothic.

Mr. Spiers' was opposed to the Queen Anne style, not because he did not admire it, but because he believed it a dangerous style for students to work in. With regard to domestic architecture, the remains of Roman architecture were as numerous as the remains of Greek; and if they dug down a few feet, they came to the remains of many of the domestic buildings of the Romans,—walls, up to a certain height, as well as doorways. In the Roman style was to be found most of the elements of the Gothic style. With regard to the "Neo-Greo" style, Mr. Ridge had referred to it as being new; but it had been in existence for many years. One great advantage, he considered, the French had over the English in dealing with Classic architecture was, that all the work that the French had done was very carefully studied. They never heard a Frenchman speak of a style, for French architects never said that they designed in any particular style, as they had several different styles. He believed that the Queen Anne style owed its origin to literature. There was no doubt but that all styles were due to literature; and they might go back 300 or 400 years, and would find that the literature of the country had had its influence in this respect. In Classical works he believed that mythology had had the greatest influence, and had led to the Renaissance, but he thought that Rosetti and Thackeray had possibly been the chief movers in the revival of styles.

Mr. Blashill thought the object of the discussion was not to fight over again "the battle of the styles" in architecture, and their comparative defects; what had caused the discussions on the subject was not the fact that the architects, who were now practising in that style had adopted it, but the fact that they had used the ugliest and the worst features of the style. He was of opinion, however, that the reaction would not last long.

Mr. Stevenson said that when he read his paper on the subject now before the meeting, it was not to point out the merits of the style in question, but to account for the fact that the style had sprung up. What was necessary, he contended, was that architects should thoroughly understand the style in which they constructed. There was a more rapid succession of styles acquired as civilisation advanced. He would be sorry if people took to the Queen Anne style for any other motive than that of working it, for he believed that the Queen Anne style was a natural development. It had sprung partly from Rosetti, and partly from Thackeray.

Mr. Ridge believed purity of style to be consistency of form applied in an artistic manner. One could not look at the forms of the buildings in the Queen Anne style without being puzzled to the utmost how architects could endure the forms they had introduced into their buildings. He did not think that it was worth while to introduce the style of any classical ornament that it contained.

INQUIRY AS TO THE SUPPLY OF WATER.

THE following are the subjects for inquiry by a Royal Commission, as suggested by the Council of the Social Science Association, in reference to the storage and supply of water in all parts of the United Kingdom.

1. The rainfall, the rivers, the ground water line, the wells, and the several sources of supply; their variations with the years and the seasons, their chemical and organic impurities.

2. The storage of water,—if any,—in lakes, ponds, tanks (natural or artificial), both of surface, river and subterraneous water, at different elevations; and the extent to which such waters now run to waste in times of excess.

3. The mechanism of distribution,—by carriage, conduits, pipes; by pumping by means of steam, water or other forces; the intermission or continuity of the supply to houses; the storage of water in houses; and all the house apparatus.

4. (*a.*) The actual consumption.
(*b.*) The required supply.

5. The special means—both constructive and legislative—of insuring a sufficiency of water for drinking, washing, and cleansing; for domestic animals, for manufacturers—through the year in dry as well as wet seasons, both in populous places and rural districts and villages.

6. The actual cost of water at present so supplied; and the probable cost of that required and to be supplied.

7. The commercial bearing of the question of water supply. The cost of water supplied by companies; the date of their origin; their capital; their progress; their rates; the number of houses they supply; the cost of water supplied by private individuals or otherwise.

8. The physiological and pathological effects of various kinds of waters on the health and mortality of men and animals at different seasons of the year, and under different epidemic conditions.

9. To devise a general scheme of water supply.
(*a.*) For the utilisation of storm waters; of underground water in the chalk, and other water-bearing strata; of water falling on mountainous districts.
(*b.*) For the filtration, purification, and softening of waters.
(*c.*) For their storage where necessary; for their distribution; for their chemical and microscopical analysis.

10. The financial and sanitary advantages and disadvantages of the water supply,—where required,—being undertaken by:—
(*a.*) Municipalities or other public representative bodies;
(*b.*) By commercial companies;
(*c.*) By individual contractors;
(*d.*) By the consumers themselves.

11. The conditions under which water might be transferred from one water-shed to another, and the connexion of the question with the rights of property so as to deal equitably between all parties concerned, and particularly to consider the vested rights of the different municipalities, private companies, and the manufacturing and trading consumers.

12. The diversion of water for manufacturing and trading purposes to the injury of the inhabitants of the towns and districts from which water is so diverted; the effect of past legislation in securing any privileges to certain companies, towns, or districts to the prejudice of other and smaller districts.

13. The loss in rural districts and villages of the ancient and usual means of supply from wells and other sources by the working of mines and other works, and the means by which such loss may be diminished or prevented.

14. The rights of owners of limited and temporary estates in lands to erect works and provide means for the supply of water to such estates and other districts either for household, agricultural, or trading purposes, and to charge the absolute and reversionary ownership of such lands with a due proportion of the cost of such works, and the necessary conditions under which this should be done.

15. To make arrangements to secure an annual report on the water supply, and a ready means of deciding disputes between existing water companies and the communities they supply.

It is not proposed that such a Commission should inquire into questions exhausted by the Rivers Pollution Commission, nor that it should lay down specific plans for the water supply of any particular town or district.

It is proposed that it should commence its inquiries with those districts in which the want of water is at present most severely felt.

DISPOSAL OF SEWAGE AT SLOUGH, BUCKS.

THE question of disposing of the sewage of this town has recently been discussed by the Local Board,—the urban sanitary authority,—and steps have been taken with a view to the settlement of it.

A new system of sewers was laid under the streets a few years ago by Mr. Curley, and an outfall proposed on some land in the neighbourhood belonging to Lord Harewood. The scheme of outfall was defeated, and a second proposal to utilise the sewage on another part of the same property was also unsuccessful. Other outfall schemes have at various times been submitted to the Local Board, but without result.

The subject was again taken into consideration by the Board last autumn, and in December it was determined to call in Mr. Grantham, C.E., to report upon the whole question. Two difficulties in dealing with the subject presented themselves. In the first place, the sewers already laid down, although not connected with the houses, were found to be discharging a large quantity of spring water, thus showing that they were not watertight,—a serious consideration if the sewage were to be pumped; secondly, irrigation seemed in this case to be the only practicable mode of utilising the sewage, and opposition to the acquisition of land for the purpose threatened from every quarter. On the north side of the town the land would probably be very expensive, and the neighbouring residents would offer weighty objections: on the east side Lord Harewood had defeated the Board twice; on the south was the River Thames; and on the only other available point, the south-west, Eton would probably, within a certain distance, bring its powerful opposition to bear.

Mr. Grantham sent in his report at the end of February, and meets these difficulties by the following recommendations:—

The laying a separate system of sewers throughout the town, and utilising the present sewers as drains to carry off the surface water.

The laying an outfall sewer westward towards Eton Wick; and pumping the sewage on to some land to the westward of the Eton Sewage Farm, beyond the reach of opposition from the Eton authorities, and remote from any residence of importance.

He has also suggested an extension of the district of the local Board.

These recommendations are concurred in by the Drainage Committee, which has reported accordingly to the Board; and the engineer's report has been adopted.

It is now proposed by the Board to apply to the Local Government Board at Whitehall for an inspection of the district to obtain the necessary sanction to carry out the recommendations.

PARIS INTERNATIONAL EXHIBITION, IN THE PALAIS DE L'INDUSTRIE.

AN International Exhibition, comprising every description of machinery, apparatus, implements, &c., employed on board-ship, in fisheries, and all other sea and river industries, will be held in Paris, during the year 1875, under the patronage of a highly influential commission, aided by committees for groups and classes and foreign delegates. It will take place in the Palais de l'Industrie, Champs Elysées, in which was held the Paris Universal Exhibition of 1855, and will be opened on the 10th of July, and closed on the 15th of November.

The awards, which are to be made by international juries, will consist of grand prizes, diplomas of honour, gold medals, silver medals, and bronze medals.

Diplomas of honour will be awarded to the jurors, and also to those exhibitors whose industrial celebrity and former awards shall justify their being considered *hors concours*.

The time is so short that it will need strong efforts on the part of the London committee to secure a proper representation of British industry. The Lord Mayor is at the head of the committee.

WESTGATE-ON-SEA.

WESTGATE-ON-SEA, the quieter neighbour of more bustling Margate, is making good progress. Arrangements are completed for supplying it with water and gas. The waterworks are being constructed by Mr. Gabrielli, who has finished the well and nearly completed the water-tower. There is an abundant supply of pure water, and it will be laid on to all the houses in about two months' time. The arrangements for the gas are also rapidly progressing under Mr. Pontifex and Mr. Woodcock. The contract for the ironwork has been taken by the Thames Iron Works; and that for laying the pipes and making good the roads by Messrs. Aird & Sons. We are informed that upon the watermains there will be fitted at convenient distances Messrs. Merryweather & Son's high-pressure hydrants, which will command by means of hose all the houses in the place without the aid of fire engines. We need scarcely say more to prove, as we said at starting, that Westgate-on-Sea is making good progress.

Safe Sewers.—At a recent meeting of the Vestry of St. George, Hanover-square, it was resolved to fix chains or a bar by the side of the sewers, to assist the men in the event of an inundation.

THE BUILDING AND TIMBER TRADES OF INDIA.

AN excellent account of the forests of India has just been published by Mr. B. H. Baden-Powell, Inspector-General of the Forest Department, and contains in a convenient and easily comprehensible form, all that is as yet known respecting the woods of our great Eastern dependency, and the practical uses to which they are or may be applied. Mr. Baden-Powell does not pretend that our information on these subjects is complete. The Forest Department is little more than ten years old; time was necessarily spent in its internal organisation; and up to the present time it has not been found possible to explore all the forest regions; thoroughly to classify, demarcate, and control every one of those districts which have been already examined; or to institute a uniform and efficient mode of management and conservancy throughout the whole of India. But as the Inspector-General sensibly says: "If we were to wait till all was done before we attempted to describe the arena of our operations, we must necessarily keep the subject in abeyance for some years to come;" and he prefers to make the existing official information public, leaving future discoveries to be successively proclaimed as they occur.

The forest area of India extends from 8° to 35° north latitude, and from 68° to 97° east longitude, and exhibits, as might be expected, every variety of climate, elevation, and temperature, and almost every form of soil and subsoil. "The general forest administration has to deal with the treatment of a great variety of forests, from the cool shade of the cedars that crown the middle ranges of the Himalayas, to the arid plains of the south Punjab and Bikaneer, where the stunted and struggling vegetation scarcely yields a rafter for the peasant's hut; thence again we may travel to the tropical forests of Burmah, where, in the deep green shade, through which the sun never pierces, the exquisite forms of palms and canes cover every bank and hollow, while creepers, ferns, and orchids of many shapes and hues, clothe the trees. Here, too, in strange contrast to the forms with which the North Indian forester is familiar, are seen forests, the foliage of which is so far overhead that it is difficult to look up to it. Everywhere are huge stems, attaining not unfrequently to a height of 100 ft. without a branch or an irregularity in the faultless cylinder of the stem." In the midst of all this forestal wealth, Mr. Baden-Powell does not attempt any discussion of the botanical distribution of forest species. His monograph has a different object, and is eminently practical throughout. He first considers the forests as directly useful to mankind in supplying timber and other products for building, manufactures, food, &c., or for the use and convenience of the people; then calls attention to them from a climatic point of view in preserving the climate and soil with its moisture and existing configuration, maintaining the supply of water in springs, streams, and even rivers, and regulating the distribution of rainfall; and ends by giving an interesting description of the forest service as it is at present constituted. It is with the first of these sections that we are chiefly concerned, and we shall confine ourselves almost exclusively to its consideration, leaving the others, which are of equal interest, "to those whom they may concern."

The Indian forests yield those chief species of trees fit for building purposes and similar uses, in which size and strength of material are demanded. These are the cedar (*Cedrus deodora*), the sâl (*Shorea robusta*), and the teak (*Tectona grandis*). Besides these staples, however, and in conjunction with them, are found many other trees which are equally useful, and which are now beginning to attract attention, as cedar and sâl and teak are becoming dear. The Inspector-General of Forests complains bitterly of the ignorant rapacity of the contractors and traders who have ravaged without remorse in a few years the capital that Nature had been storing up with centuries of toil. He says: "Because these species happened to be good, they were the first produced in the market; because they were thus found alone in the market, they were the first used when public works, barrack-building, and contonments became the order of the day; because they were first used for such purposes, and found to answer, they were used also for fittings and for every other purpose, till people got to imagine that no other wood in the country would do at all." Still they are unquestionably the best woods, and for all superior purposes will continue to be in demand, although for ordinary uses other sorts exist in profusion, and would prove equally serviceable. Indian cedar, which is believed by many to be of the same species with the cedar of Lebanon and that of the Atlas Mountains, only exists, in British territory, in the Punjab and the North-Western Provinces, although there are supposed to be great unbroken tracts beyond our frontier which are covered with it. It is found at an elevation of from 5,000 ft. to 9,000 ft. In the Punjab it is the best building timber, as it is unsurpassed by either sâl or teak. In the North-Western Provinces, on the other hand, sâl everywhere occupies the primary position, and cedar is chiefly in demand for railway sleepers. As there is no means of land conveyance on the hill fastnesses, where the cedar has its home, those forests only are regarded of importance which are situated near a river, to which the logs can be dragged or tumbled by timber slides, and on the waters of which they can be floated down to the plains. On the Jhelum, the cedar forests on the main river are in Cashmere, and they have been ruthlessly despoiled, as is usual in native states. In the Kishnganga and the Kaghan valley the work of destruction has been averted, and when Mr. Baden-Powell visited the district in 1867, he found splendid forests of pure cedar occupying the slopes of the hills down to the water's edge. The Chenab cedar forests, which are also in foreign territory, have been greatly wasted and destroyed. With respect to them, we are told that, the river being one on which the floating and transport of timber are comparatively easy, "a host of contractors and speculators rushed to the forests, and as every new station laid out and railway constructed after the annexation of the Punjab, in 1849, added to the growing demand for building timber, so tract after tract fell a prey to the axe, and now nothing remains in the finer and more accessible forests but the remnants which we came in time to preserve, and the few seedlings that a bountiful Nature, in spite of opposition, struggled to reproduce." The Inspector-General of Forests has no love to spare for contractors' woodmen; but the justice of his censure is shown by the fact that after the Government leased the Chenab forests it was able to stock the market, simply by extracting and exporting the material that had previously been felled, but was left to lie on the hill-sides, because its removal demanded the construction of a short slide or the expenditure of a little labour, money, or supervision! The Sutlej cedar forests are the most extensive and valuable in the Punjab. They have been worked with some extravagance close to the river, but in the side valleys magnificent belts of trees remain, and these have been carefully and judiciously thinned by Messrs. Brassey, Wythes, and Henfrey, who purchased a grant of 8,000 trees, and worked out the wood chiefly for railway sleepers, "having been the first contractors who had ever worked in the Himalaya on a conservative principle, constructing good roads and aiding the transport of material by timber slides and other devices." It is said that these forests would still yield a good turn-out of timber; but the natives are desperately lazy,—so very lazy, that Mr. Baden-Powell thinks it would be a very good thing for all parties if the Rajah would exercise his right, and compel them to work for some weeks every year, only introducing the novelty of paying them for their labour. Besides the cedar, the forests of the Punjab produce a variety of useful pines. Among others there is the *Abies Smithiana*, which stands well for indoor work, and the *Pinus excelsa*, which is found in extensive forests, and in many districts forms the chief building material. The Inspector-General calls especial attention to the prevalent and greatly-neglected *Pinus longifolia*. It is conveniently situated on the lower slopes of the hills, and he says, "It possesses a greater strength or bearing power than even cedar, but in other respects is inferior, though no doubt it is one of the woods which would be improved almost indefinitely by impregnation. As it occupies a large area of the lower hills, where no other building wood is found, and which, moreover, is so much nearer the plains, the roads of export, and the markets than the more valuable cedar, it promises to become a species of great importance, and one that warrants careful conservation, and well-considered experiments as to its seasoning and general treatment for timber." The twisted cypress is also found, and its beautiful scented pink wood is much valued; but its rarity makes it costly. The yew is not uncommon, and five species of oak are known, of which the finest is the *Quercus semicarpifolia*. Its wood, however, is only locally used, for it is too heavy to float; and hence it has never been tried on a sufficiently large scale really to test its qualities. Besides the above-named trees, the Indian chestnut, the bird cherry, various maples, the ash, the walnut, and the birch are all produced in greater or less profusion in the Punjab.

The cedar forests of the North-Western Provinces have not suffered so much as those of the Punjab, for most of the heavy timber required has been taken from the sâl forests, which lie lower on the hill sides. The only cedar blocks which seem to call for special notice here are those in the Bhagirathi forests, which suffer severely from avalanches. "Here," writes Mr. Grant, "huge lanes may be swept clean down the hill sides, and the whole place strewed right and left with the *débris* of trees hurled down and broken in pieces,—from small saplings up to trees of 12 ft. and 15 ft. in girth,—in one common destruction." In these forests also the growth of the cedar is extremely slow, as, owing to the height of the mountains, the sun disappears at half-past one or two o'clock in the afternoon, and does not reappear till half-past eight in the morning; while the night and winter frosts are severe, and cutting winds blow all day long. Associated with the cedar in the North-Western Provinces are many of the other building woods already mentioned, and most common of all is the *Pinus longifolia*, so favourably noticed as a product of the Punjab. Speaking of it, Colonel Pearson says: "It would be difficult adequately to describe the enormous seas of 'chir' forest which line the bank of the Jumna. In this the trees must be numbered, not by thousands, but by hundreds of thousands, and many of them are of huge size." The cedar, as we have said, takes long to reach maturity in the Bhagirathi district; but at best it is a slow-growing tree, although its rate of progress varies considerably with the rainfall, climate, and elevation. In India it attains a very large size,—trees of 18 ft. in girth and 100 ft. to 150 ft. in height being far from uncommon. Several trees of 36 ft. in girth have been noted, and a few of more than 200 ft. in height have been felled. At Simla, it is said that the cedar attains a diameter of 2 ft. in sixty to eighty years, but in drier regions, at a similar elevation, the same diameter will not be attained under 150 years. The tree has many enemies besides man; and the Forest Department have determined to confine their operations to preserving and restoring the forests. The market meantime will be supplied by removing the abandoned material of former years, and the dead and fallen trees that fires, storms, and avalanches have so abundantly produced. In the more remote districts, where full-grown timber has been left by the contractors, timber slides will be constructed, and it will be extracted.

The sâl (*Shorea robusta*) is a very heavy wood, of greater strength than teak, its breaking weight being 1,391 lb., while that of teak is 1,091 lb. It resists the ravages of the white ants, and is consequently in demand for building purposes where they abound. It is, however, better suited for beams than thin planks, which are said to twist and split. As it does not float, its export is chiefly effected by land carriage, although sometimes it is river-borne with the assistance of bamboo or light wood supports. The sâl forests occupy a much greater extent of country than the forests of cedar. One great belt of sâl lies along the foot of the Himalayan ranges from the Jumna to Assam. It abounds in the North-Western Provinces, and the remains of a third great forest are found in the Lower Provinces, and a considerable portion of the Central Provinces. In the valleys of the Haldwani and Sarda rivers there are some fine tracts where the woods have never been touched by the hand of man, and abound in good timber of apparently middle age, most of the trees being 6 ft. to 8 ft. in girth, and 60 ft. to 80 ft. high. During the nine years from 1859 to 1868, some of the adjacent forests of Kumaon yielded 4,204,589 cubic feet of sâl, which realised 244,958*l.*; and this was a very small yield, only amounting to about 467 cubic feet annually per square mile. Large quantities of fine logs are exported from Nepaul, which is covered with sâl forests. There, as in more moist districts, other trees rise into prominence and afford excellent building timber. Among these are the "sam," a fine species of *Atrocarpus*, the magnificent *Lagerstæmia*, the "nahor" (*Mesua ferrea*),

the "toon" (*Cedrela toona*), and the "jamn," comprising two species of *Eugenia*. Fine specimens are also found of the *Ficus elastica*, or india-rubber tree. So numerous, indeed, are the forest trees at the eastern end of the Himalayan belt, that 102 of more than average merit are specified by the Forest Department, and twenty-nine are characterised as "valuable." The great sâl tract on the central continent of India occupies a considerable portion of Bengal, part of the Central Provinces, and Northern Madras. In the northern portion of Bengal only the relics of the former forest remain; but of Chota Nagpore and Orissa, Sir George Campbell says: "It may be said that the whole country, wherever it is in the least degree raised above water-level, is one mass of natural sâl. . . . The Chota Nagpore division and Orissa tributary Mehals, from 50,000 to 60,000 square miles, may be said to be one great sâl forest, partially interrupted by cultivation." The trees, however, are, as a rule, stunted, and it is supposed that here the sâl begins to reach the limit of its natural growth." In the sâl forest of Topla, in the Central Provinces, magnificent trees are still found, some being 9 ft. in girth and 80 ft. high. Throughout the whole of India the sâl forests have suffered much from fires, which are often intentionally kindled by the ryots to clear the ground from jungle-growths. The consequence is, that the trees have been scarred and stunted, and that in some of the worst localities "only a huge torso, blackened with fire, hollowed and diseased, remains here and there, to bear silent witness to what the forests once were, and to make powerful, albeit silent, protest against the absurdity of the idea which still lingers in India, that forest fires are beneficial to sâl forests." Under proper care and protection, however, it is hoped that the forests will resume all their former luxuriance and grandeur, while at the same time an abundant and moderately-priced supply of this valuable timber is made available for useful purposes.

The qualities of teak, the third great building wood of India, are too well known to need recapitulation. When the tree is in a locality and within a zone of climate which it likes, it assumes magnificent proportions, specimens of from 8 ft. to 15 ft. in girth being common, and boles of larger circumference by no means rare, while the stems often rise from 70 ft. to 80 ft. without a branch. Teak forms a chief feature of the Central Provinces, Berar, Bombay, and Mysore, and to some extent of Madras also. Its natural northern limit appears to be about 25° north latitude. In the Central Provinces there is a great deal of teak *jungle*, but very little real teak forest. It is generally associated with other timber-yielding trees, such as "saj" (*Terminalis tormentosa*), blackwood, "anjan" (*Hardwickia binata*),—a strong and valuable building timber,—and satinwood. North Berar is full of teak of small size, and the Melghat portion has been set aside as an extensive reserved forest of 400 square miles. On the Western Ghâts there is much more coppice wood only fit for rafters, but there are also many fine straight stems from 60 ft. to 80 ft. high. In Canara teak abounds, as do also ebony and ironwood; and although many of the forests have suffered from over-cutting, the resources are still considerable, and natural reproduction, where protection is given, is stated to be excellent. In Canara also there is abundance of a valuable tree, *Vitex altissima*, which is said to be as good as, if not better than, teak. The protected state of Mysore is particularly rich in good woods, and contains at least a score which are valuable for building purposes, the best being teak, sandal-wood, ironwood, and blackwood. In Coorg blackwood is very abundant, and in Madras, Malabar, Cochin, and Travancore there are large quantities of teak. Leaving India proper, we find teak in luxuriant profusion in Burmah, whence it is largely exported. Its export is usually effected by floating, but the timber is too heavy to float unaided, until it has become somewhat dry. It is therefore customary in Burmah and in some parts of India to girdle the trees, *i.e.*, to kill them by a deep circular incision through the bark, and through every part of the sapwood. So great is the vitality of the teak, that if the sapwood is not completely divided a column of living tissue will remain, through which the juices of the tree will continue their circulation, and in many cases re-establish the functions of growth. Girdling has the advantage of rendering the wood floatable, and also keeps it out of the way of forest fires, to which it would fall a ready prey if it were lying felled on the ground. It is also useful, if the process is continued long enough, as a means of check in the case of permit-holders, as the timber acquires an easily recognised appearance, and so can be distinguished at the stations for examination and payment of royalty, from timber that has not been girdled. Whether it injures or improves the wood is a disputed question. When a tree has stood for a couple of seasons after girdling, and has become dry, it is cut down, dragged to the nearest stream, marked by a blow of a marking-hammer, and tumbled into the stream, down which it floats alone until it reaches a river, where it is fastened with others into a raft. The dragging is hard work, and the ponderous logs have often to be hauled for three or four miles over hill, down dale, and through forest before reaching a watercourse. The lighter logs are dragged by buffaloes, the heavier ones by elephants. It is said that the sagacity which the elephants display is marvellous. The animal seems to exhibit intelligence almost amounting to reason, in the way in which it will move a log, alternately lifting it with its tusks, or pushing it with its forehead or knees, first at one end and then at the other, till it has got it into the required position for rolling it down to the bank of the stream.

"On the Salween a peculiar mode of timber export is followed: the side streams and feeders take the single logs to the main river, but the whole of the upper portion is an unmanageable torrent, so that the logs have to be left to chance. As soon as the part of the river is reached where catching and forming into rafts is possible, stout ropes of twisted rattan are stretched across the river at intervals; thus the logs coming down in a confused mass are stopped. The expectant owners station themselves at the banks, and after stopping such logs as they perceive to belong to them, they push the other logs under the rope; they then pass on till a second party at the next rope make a similar examination. Such logs as are stopped in this way are formed into rafts; but a number of logs, of course, which in the hurry of the moment are not recognised, or whose owners were not on the spot, escape the ropes, in spite of all precautions, and float down unclaimed. Below the last rope, therefore, a numerous band of people collect during the catching season, and gain a livelihood, by boating, and even swimming after the logs,—'salving' them, as it is called. This is now done under Government supervision, and the owners reclaim their timber on payment of certain salvage dues at a regular authorised scale."

Mr. Baden-Powell points out that the teak-tree grows very fast,—30 ft. poles having been produced from trees of two years' growth, while in a Malabar plantation there are stems of from 70 ft. to 80 ft. in height which have only been planted for three-and-twenty years. He does not think that slow-grown teak is better than the other; for Malabar teak is as fine as, if not finer than, any teak in the world, and its rate of growth is remarkably rapid. The teak forests are eminently suitable for natural reproduction; but a careful watch must be exercised over the successive fellings, and judicious supervision is necessary to insure that this light-loving tree obtains sufficient sunshine without admitting so much light as to cause a crop of tall tropical grasses and weeds to spring up and get the upper hand of the young plants. Creepers and parasites must also be destroyed. One of the much-mooted questions of the present time is the cultivation of teak, and its introduction into Bengal and Assam. Mr. Baden-Powell thinks that it would be perfectly useless to spend large sums on such work while neglecting the valuable indigenous trees of the country, or to expect to compete with Malabar or Burmah, the natural homes of the teak of commerce. The market rate of the best Burmese teak may be taken as fluctuating between 7*l.* 10*s.* and 8*l.* 10*s.* per ton ready for shipment at Rangoon or Moulmein. Instead of planting teak forests in Bengal, the Inspector-General urges the Government of India to adopt measures to render the resources of British Burmah better known, and to instruct its officers to forward supplies of valuable woods which are little known to the coast. Among others, he instances the "thitka," or bastard mahogany, and the "thikado," or bastard cedar. There is also the "thingan" (*Hopea species*), a wood heavier than teak, and which lasts under water far better. Again, there is the "anan" (*Fagræa fragrans*), rather a common tree, which behaves so well under water that it hardens, and the natives, with pardonable exaggeration, say it becomes stone. This wood, it is stated, would be invaluable for canal works, piles, &c. There are many others known besides these, and many more, it is supposed, whose useful properties have yet to be discovered.

The forests of India abound in valuable woods suitable for manufactures; but very few of them are either used, or even known, out of many that are available. This is not much to be wondered at, for unless wood is required for export, or for the limited supply of furniture in the European style, there is but little demand for woodwork of any beauty of colour, grain, or polish. The sâl and the teak, with other large timbers, serve for the boxes and the stools, and other very limited furnishing requirements of the Indian agriculturist's house. Mr. Baden-Powell roams from presidency to presidency, from province to province, and from district to district, minutely describing the resources of each; but we have not space to do more than enumerate a few of the principal woods which he points out in his wanderings. India largely produces a walnut-wood, which, though identical as a species with the walnut of Europe, does not produce the fine variegated wood so much valued in cabinet-making in Britain. The Indian yew, however, presents a fine wood for the cabinet-maker, and the beauty of its pink-veined wood, with knots and markings of a deeper shade, renders it a charming variety, especially in parquet work. There is plenty of workable boxwood in the lower Himalayas, and the olive also flourishes; but the most attractive wood is the "kakkar" or "kangar" (*Pistacea integerrima*). It is a zebra-wood having a yellowish ground, with black or brown wavy bands or streaks. It grows to a large size, and Mr. Baden-Powell thinks has not received the attention which it deserves. He advocates its preservation and plantation. The bastard cedar is extensively used for furniture, and when old and well grown is a wood of considerable beauty; but ordinary pieces are only fit for making cigar-boxes. This wood is not liable to the attacks of insects.

The chief woods, however, of the northern and comparatively arid districts are the "sissu" (*Dalbergia sissoo*) and the "babul" or "kikkar" (*Acacia Arabica*). The former is a hard wood, the heart-wood of older trees being dark brown, finely veined. The Inspector-General says he has seen polished specimens of this wood which would bear comparison with Brazilian rosewood. It frequently attains a growth of from 6 ft. to 8 ft. The "babul" is a tree which may be described as the agriculturist's friend. It supplies the chief wood for all ploughs and agricultural implements, and for rafters. It grows all over India, from the Punjab to Travancore. In Chittagong the most noted furniture-wood is *Chikrassia tabularis*, a beautiful wood, often veined and mottled, and of light red colour. In Bengal, among others are the tamarind-tree, ebony, mahogany, and "wild-jack," which yields a fine yellow furniture-wood. Bombay has its celebrated blackwood (*Dalbergia latifolia*), which is tolerably well known even in England. The wood is beautiful, and very strong and heavy; its colour is black, or greenish black, sometimes mottled and veined. The tree attains a girth of 15 ft., and planks may be obtained 4 ft. broad after the sapwood is removed. Ebony is abundant in Canara, but the west and north produce the best, and 16-in. planks of a fine colour have been obtained. The wood is much affected by the weather, and is chiefly useful for veneering. The ebony of Canara is inferior to that of Ceylon. Satin-wood is found in the mountainous districts of Southern India, but does not reach a large size, Ceylon being the real habitat of the tree, where it is the king of the forest. Last of all is the sandal-wood of Mysore. The State has a right to this valuable tree wherever it grows, and retains a monopoly of its sale. The girth of the mature tree varies according to circumstances from 18 in. to 36 in., or even 40 in. The heart-wood is hard and heavy. The best parts are used for carving ornamental articles, the roots and chips go to the still, while Hindoos who can afford it show their wealth and respect to their departed relatives by adding sticks of sandal-wood to the funeral pile. For commercial purposes the wood is divided into five classes,—the average price for the first three classes being 43*l.*, and for the fourth and fifth classes 34*l.* per ton. The hollow pieces and chips realise 36*l.* per ton. The annual exports vary from 690 to 714 tons.

DWELLINGS OF WORKPEOPLE IN PERSIA.

In the towns of Persia large caravanserais, built in former times to accommodate a far more numerous population, are generally to be found where a large number of workmen are lodged, at the rate of from 1s. to 3s. per month. These buildings are all more or less in a ruinous condition; but as this is the state of affairs, high and low, throughout the country, no great sense of discomfort or inconvenience is felt. Each workman must provide a rough felt for sleeping, and a cooking-pot, which are the only articles in the shape of furniture to be seen in such places. The still poorer classes take refuge in the courtyards of mosques and sheltered corners in various parts of the towns. Of the workmen who are married, some possess a small piece of land, which helps them to maintain their family, and on which they have erected small houses of sandstone and mud, or huts of date-leaves, according to their means. The wives and children add a trifle to the family purse, by sewing, or more frequently by carpet-making or rough weaving. Where, however, industry falls short, or, rather, indolence takes its place, the poor readily resort to begging; and in a country where every one who has the merest pretence of religion must give alms, it is by no means an unprofitable step. It is rendered still more remunerative should the beggar be caught stealing, and lose an arm or foot as punishment, he being in that case disqualified from work, can beg with the certainty of success.

In Bagdad, the houses occupied by the artisans and labourers vary according to their means. Some are comfortable, but all are badly ventilated, and those of the poorer people are very inferior. All the houses are built on the same principle, whether of stone, brick, or mud. The form is a square or parallelogram, surrounding a court, into which the rooms open, and there is seldom any opening to the outside of the building except the entrance-door. The roofs are flat, and on these the occupants sleep in the summer, while they are also used for the purpose of spreading on them any article of produce which they desire to dry in the sun. In the centre of the courtyard is a sunk and covered cesspool, into which the refuse water and off-scourings of the house are permitted to run through a small hole in the ground. The houses consist of only one floor, none having an upper story. Drainage is most imperfect, and miasmatic dirt, overcrowding, and air-poisoning are the rule. The workpeople live principally on bread, and dates and other fruits in their season. Water-melons, which are cultivated in large quantities, form a staple of their food during the summer.

In Tabreez even the labourers of the poorest class generally own the houses in which they live; building land can be bought in their quarter of the town for about 50s. the 100 square yards, sufficient space for a house and yard, which is built by the owner personally, and may cost him 8l. to 10l. sterling. They are built of mud, and the roofs, which are flat, are plastered with the same material. They are generally low, and the entrance still lower in proportion seldom more than 3 ft. high, while the inner doorways are sufficiently commodious. The object of the low entrance is to prevent horses from being billeted on the owners. The artisan classes and skilled labourers form about one-twelfth of the entire population (200,000). The Christians are excluded, through Mussulman bigotry, from engaging in any trade or manufacture which might indirectly cause defilement to a Mussulman purchaser; and the rule followed is that any construction or manufacture which requires to be handled or manipulated when in a moist state is only to be undertaken by Mussulmans. This debars the Christians from following the trades of masons, tanners, painters, bakers, butchers, &c. On the other hand, however, they are almost the only goldsmiths, gunsmiths, and carpenters.

In Bussorah, the Balsora of the "Arabian Nights," the houses are built of bricks, dried in the sun, which endures for ages if kept tolerably dry. The clay used in making the bricks is far from being moist, but in almost a dry state is beaten into the moulds with mallets, a process which gives them a wonderful degree of hardness. The houses are all coated with mud, and having no windows which look into the streets, the latter present a dreary and uninteresting spectacle. In the country villages the house often consists of a large underground apartment, in which a platform is raised and enclosed with a railing. This again is benched round, which benches serve for seat and bedstead. Being vaulted with a sort of cupola it has a round hole in the centre, to admit air and light, and to carry away the smoke of the fires there being no other chimney. In other towns and parts of Persia, the workmen's houses are very similar in construction to those described. The drainage in all is very bad, but ill-closing doors, and ill-fitting windows leave nothing to be desired in the way of ventilation.

Although capable of turning out good and creditable work, it is seldom the workmen do so; as a rule, it is slovenly and clumsily done. Being paid by the day they protract their time as long as possible. Their countrymen appear to prefer cheapness to every other quality, and whoever works for lower wages will get employment in spite of his inferior skill. The untrustworthiness of the Persian character is seen in every class, grade, or calling, and although the labour is low priced, bad workmanship and waste of time make it nearly as dear as it is in Europe. The only occasion when they endeavour to display superior skill is when employed by some nobleman from whom they hope to receive a reward much in excess of the value of their labour. The tools they use are all brought from Russia; and are of a bad and cheap description; they would hardly find purchasers in any other part of the world.

In the manufacture of shawls and carpets, in brasswork, in enamel on gold and silver, in every species of ornamental work, where a good effect is sought for, rather than excellency of finish, the Persian work may be said to be good. Everything is done by hand and left unfinished, rather from an ignorance of the higher principles of artistic work than from any real incapacity; save in respect to the shawls and carpets which combine an artistic sense of the harmony of colour, with a wonderful perfection of finish and durability. But none of the modern fabrics of Persia are at all equal to those produced in former times. The carpets, felts, and silks have very much deteriorated; the handsome enamelled bronzes of Isfahan are no longer to be found.

The ignorance of the workmen is not altogether the result of their want of opportunities of improvement. The love of tradition is very strong, and the change in the quality of production seems alone to have been brought about by that universal law which gradually deteriorates the labour of nations which do not progress. What has been said about the higher branches of work applies equally to the lower. Everything in Persia follows a geometrical ratio in its decay.

Apprentices begin to learn their trade at eleven years old, and remain with their masters until they reach man's estate. The usual hours of labour are from sunrise to sunset, less the time occupied by prayers and meals,—about two hours. Labourers and journeymen are engaged only by the day. In some trades an additional allowance, generally in bread, is given according to the quantity of work executed.

The diet of the labouring classes is of the simplest description: bread, fruit, and cheese form their usual repast. A labourer's food will be a lump of dates before going to work, some bread (unleavened) and salt fish for dinner, and some boiled rice for supper. The men who can earn higher wages possibly wear a better shirt and turban, but nothing more; whatever they save is usually converted into ornaments for their women. When the winter diet of the workman consists almost entirely of bread, rice, and bad cheese, with a small quantity of tea in the form of a decoction, and the summer diet of bread and "safi," or summer produce, i.e., melons, cucumbers, vegetable marrows, egg-plants, and various forms of edible gourds, he can just manage to keep within his income, which is about 9½d. per day, or 21s. per month.

Knowledge its own Reward.—Last week Mr. Roebuck, M.P., distributed the prizes to the students at the Sheffield Mechanics' Institute. He pointed out that the majority of men in the country had to govern themselves, and what he desired was to see them educated honestly, industrious, and upright, so that they might govern themselves well. He condemned the idea of telling the working classes they could as a body raise themselves out of their position as labourers. He wished them to seek happiness in the station of life in which they were called by Providence, and one of the best means for attaining this was intellectual research.

IMPERFECT ARCHITECTURE.

In none of the fine arts is perfection, or an approach to perfection, more difficult of attainment than in architecture. This may easily be accounted for if we consider the difficulties with which the architect has to contend, difficulties which do not obtain in other branches of the fine arts. The poet, the painter, and the sculptor, have more or less plastic materials to deal with, and they have not to struggle for the realisation of two objects which are often conflicting and antagonistic,—utility and beauty. The greater the conception, the mightier the scheme, the more strongly does this antagonism come into play, the more difficult does it become to sustain unity of character and congruity of parts, to produce that feeling of completeness and sustained interest which obtains in an epic poem, that harmony of tone and grace of composition which the painter gives to his work, or that flow of line and gracefulness of posture which is the aim of the sculptor.

There are reasons, too, which militate against the carrying out of an architectural work in the spirit of the original conception. The designer is not always, indeed seldom is, left to carry out the work as he would wish it; funds are not always at command, and not unfrequently the continuation and final completion of the work are entrusted to others. Then, again, a great and important edifice is seldom completed in the lifetime of him who conceived its design; the work progresses by slow degrees, a change of taste occurs, the details are altered or tampered with, and probably the original idea is abandoned, and the edifice assumes a new character, the final result being perhaps a picturesque combination, or an incongruous agglomeration of parts, beautiful it may be in a certain sense, but defective as regards that completeness and unity of effect which was the aim of the original designer. The good or bad effect of a building so treated will depend upon whether the parts appear naturally to belong to each other, and so combined into harmonious composition. This is more particularly the case as regards ecclesiastical architecture. The temple, designed for one great purpose, is not in the same position as a secular building. If conceived in the true spirit, it should represent the stability, unity, and grandeur of the Christian faith, and that in spite of the variations and fluctuations of style and taste. Where we do not find this, it is reasonable to conclude that the religion professed is as much out of keeping with the original teaching as the details are with the building they profess to adorn.

Very few Gothic churches of any great dimensions can be said to be complete and harmonious throughout, few of them indeed which have not some single feature which is crude and incomplete in itself. The tower which arose beside the basilica to meet the new requirement for bells was originally a separate and detached structure, but in course of time it came to be considered an integral portion of the sacred edifice. When placed in the centre of the west gable this feature combined with the body of the church so as to form an harmonious composition, but in that position it blocked up the gable, and deprived the interior of the effect of a west light. The expedient of placing it at one side was not considered altogether satisfactory as the composition appeared to be incomplete, and hence it came that two towers were produced so as to balance each other; and finally it was found that, where the church assumed the form of a cross, a third and larger tower was required to complete the composition. The production of these towers required no small expenditure of money, and consequently we find numerous instances where such were intended, but have not been executed.

Another source of incompleteness in Gothic churches arose from the fine idea of crowning the tower with a spire. Many towers there are which have been designed to be so finished, but which are left in their incomplete state, and thus appear squat and unsatisfactory. To combine a massive square tower with a graceful tapering spire, so as to produce a feeling of organic unity, as if the one grew out of and formed an integral portion of the other, is no easy matter; hence we find many failures in this respect. Sometimes the spire appears to have slidden down somewhat within the four walls; again, it seems as if it had been stuck on at random and held its place by mere chance; and anon as if it would extinguish the tower altogether. Seldom do we see a really fine spire; but once

seen, it holds its place as one of the most beautiful creations in stone and lime.

The first requisite in a building is that its form should be graceful and well proportioned; if it is so it will be a beautiful work of art, although almost destitute of ornament; but no amount of ornamentation will make a badly-proportioned edifice really worthy of admiration.

Ornamentation which is beautiful in itself may be applied to an uncouth mass, and may attract our admiration; but that does not exonerate the designer from the fundamental error of inattention to general form. If true harmony of proportion in the mass has been attained, even badly-applied ornament cannot altogether extinguish the beauty of the original conception, unless, indeed, the ornament is upon such a scale as to overpower by its dimensions what it professes to adorn.

The same rule, which applies to the general outline and proportion of a building, is also applicable to the detail. The ornament should not only combine harmoniously with the building, but should in itself be graceful and complete. Broken pediments, *et hoc genus omne*, which are now coming into favour, can never be anything but examples of a debased taste. A pediment fallen into decay, or broken by accident, may undoubtedly be a beautiful object, its incompleteness is due to natural causes, and the mind instinctively grasps the idea that it was at one time complete, and was originally intended so to be. But to imitate this incompleteness, and to produce it of new, is quite as imbecile a proceeding as to construct a new ruin. The aim of every true artist should be to attain perfection. He should reject everything manifestly imperfect. Genuine ornament should contribute to the general harmony and dignity of "building" instead of imparting to it a look of fussy littleness, which it is sure to do if made up of shreds and patches. Some recent erections are apt to cause a feeling of irritation rather than that pleasing sensation of tranquillity and sustained interest which is produced by the contemplation of a really well-considered design. To ornament construction, and not to construct ornament, has been accepted as an axiom. To construct imperfect ornament is the height of folly.

ST. GEORGE'S HALL, LIVERPOOL.

It is now twenty-one years since St. George's Hall, at Liverpool, was opened, the inauguration having taken place in the year 1854. The erection of this noble building occupied no less than sixteen years, the foundation-stone having been laid by the father of Mr. Rathbone, the present member for Liverpool, on the Queen's coronation-day,—the 28th of June, 1838,—and when the opening took place in 1854 the building was by no means complete, the courts of law being at that time the only portions of the interior which at that time were actually finished. It was not until some years afterwards that the great hall and the concert-room were finally completed, the decorations of these two apartments being of the most elaborate and costly character, more especially the vaulted and sculptured ceiling of the great hall. The outlay on the building was upwards of 300,000*l.*, more than 20,000*l.* of which were expended in the interior of the great hall. A still further large expenditure is now about to be incurred in redecorating this apartment and the concert-room.

At the last meeting of the council, the finance committee recommended that the tender of Messrs. White & Son for redecorating the two apartments, for the sum of 3,745*l.* be accepted.

Mr. Alderman Weightman (formerly the borough surveyor), in moving the adoption of the recommendation, said that the hall as it now stood was positively discreditable to the town; and in answer to a question, said that the ceiling as well as the walls,—indeed, everything,—was to be repaired.

During the time the subject was under discussion a question was asked as to the number of artistic decorators in Liverpool. A member inquired if the tenders for the work were limited to three, and on being answered in the affirmative, he wished to know if there were only three decorators in the town capable of doing such work; whereupon Mr. Alderman Weightman remarked that he should decline to say that there were not more than three, but he believed such to be the case.

If there *are* three capable of properly executing this work, Liverpool may be proud.

ST. PANCRAS VESTRY HALL.

WE give in our present number the front elevation of the St. Pancras Vestry-hall, which, during the past six months, has undergone a complete remodelling, with extensive additions.

For some time past further accommodation and greater convenience have been urgently needed, in consequence of the increased business staff of this large and important parish, containing over a quarter of a million inhabitants, and being first in rateable value in the assessment list of the metropolitan parishes, excepting only the City of London proper. It extends from "The Spaniards," on Hampstead-heath, to St. Andrew's, Holborn, north and south, and from the "Brecknock" to Primrose-hill, east and west.

It was at first a question whether the offices should be in an entire new building, and designated the Town-hall, in a more central position of the parish, or if the old building should be enlarged. The vestry, however, in the spring of last year advertised for designs for extending the old building, which resulted in the selection of Mr. H. H. Bridgman, architect, to carry out their requirements.

The site is the freehold of the vestry, and the offices alone stand upon an area of 130 feet by 64 ft., about one-fifth of an acre, and are three stories in height, more than one-half of which is entirely new building. The old portion has been so altered that it is difficult now to recognise the old vestry building at all.

The ground-floor will be occupied by the sanitary and gas departments, the Burial Board, and District Superintendent Registrar's Offices, in addition to six fireproof strong-rooms, gas-testing room and medical officers' laboratory. Extensive lavatory accommodation for the whole of the offices is also provided on this floor, but outside the main building.

The first floor contains the vestry clerk's, works', and finance departments; also the offices of the guardians and directors of the poor.

The second floor is wholly taken up by the vestry-hall, Board-room, library, and committee-rooms, which also afford suitable arrangements for occasions of concerts or public entertainments; and above the Board-room is a suite of apartments for the hall-keeper.

The first floor is approached from the principal entrance by a flight of Portland stone steps, 10 ft. wide, with ornamental panel balusters and wainscot handrail. At the top of the first flight, right and left, are the staircases to the second floor, with large arches spanning the entrances.

From the street-entrance spacious central corridors are visible on the ground and first floors, running the entire length of the building, with pendent globe-lamps from the elliptic arches. On either side of these corridors are grouped the different departments.

The entrance-hall is paved with encaustic tiles, and is two stories in height. Suspended from the central panel of the ceiling is a large globe-lamp; the ground-floor of the hall is further lighted by two standard globe-lamps on the newels of the bottom central steps. In the hall is a black marble slab, with gold sunk letters, indicating the various offices by numbers; and adjoining is the inquiry office, fitted with all the necessary postal and delivery arrangements for facilitating the general business.

In the rear of the building, at the extremity of the corridors, there is another staircase the whole height of the building, affording ample convenience, light, and ventilation. Each office has a perforated ring ventilator in the centre of the ceiling, from which is suspended the gaslight, with ready outlets to the fresh air by means of air-bricks in the external walls at the joist level.

The strong-rooms are fitted with slate shelves and tables, and easily approached from the different departments. Several massive iron safes,—Milner's and others,—are also built into the walls of the chief offices.

A lift is provided in the vestry clerk's department for the purpose of more readily moving the cumbrous rate and index books to and from the strong-room, which in this case is immediately underneath; and the works department is fitted with special arrangement for paying the street workmen without the necessity of their coming into the building. The offices throughout are fitted with Zimdar's electric bells.

The large hall, which is about 70 ft. by 40 ft., is yet to be decorated, together with several minor improvements in the old portion of the building. Most of the new fittings, desks, cases, and counter-tops, many of which are of special construction, are in wainscot.

The extent of the new front is about 75 ft. by 50 ft. high, and stands on what was originally a spacious enclosed forecourt, and from its being at the junction of four principal streets of the neighbourhood,—viz., Pancras-road, King's-road, Crowndale-road, and Great College-street,—it forms a prominent feature.

The ground-story is faced with Corsham Down stone, with ashlar and sunk work; the corners are circular; and it has a dentil cornice. The entrance columns are polished grey granite with wainscot sliding doors; the device of the St. Pancras Common Seal is carved in the tympanum over the door, illustrative of the victory of the youth St. Pancratius over his persecutors; this device is also embossed within an oval garter on each lower sash, of plate-glass, throughout the entire front. The first and second stories are faced with red Fareham bricks, with blue black joints, and with Bath stone dressings and quoins; the whole is surmounted by a bold stone block cornice and balustraded parapet. The centre, projecting, is designed for a clock dial, and is protected by a segmental hood, supported on carved scroll ancones; above this is the base for a full-size figure of St. Pancratius, the patron saint of the parish. It is expected that both the figure and the clock will be the gifts of two of the ex-churchwardens.

The foundation-stone was laid on the 8th of July last, as recorded on the stone, on the occasion of the triennial boundary-beating of the parish by the two churchwardens, Messrs. Joseph Salter and Charles Coleing, and the hall will be opened during the present month.

The business of the parish has been carried on as usual during the whole period of the alterations, consequently causing many difficulties and inconveniences to the builders, Messrs. Wilson Brothers, and to their foreman, Mr. Bowles, who are carrying out the works in a satisfactory manner under the immediate superintendence of the architect.

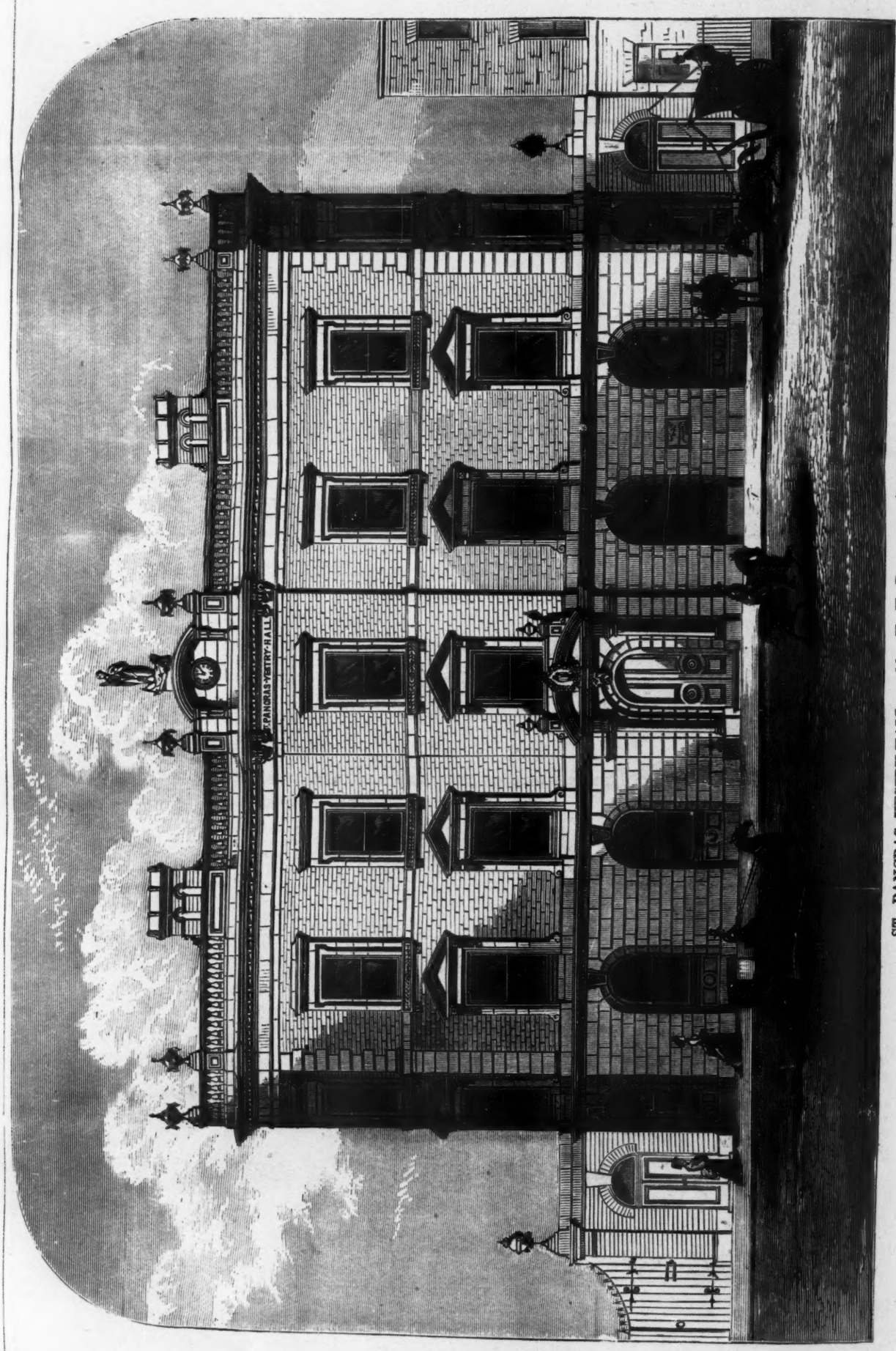
STRIKES AND WAGES IN GERMANY.

ONE of the effects produced by the last war with France has been the steady advance of the prices for labour, and for all the necessaries of life, in Germany; and the continually increasing demands of workmen for increased wages have led to disputes between them and employers. Partial strikes of carpenters engaged in ship-building and others were of frequent occurrence before the war; and especially at the beginning of spring, when the workmen stood out for higher wages than they had received during the shorter winter days. Such demands, though sometimes resisted by the masters, generally resulted in increase of wages, and if "strikes" occurred, the disputes were, as a rule, satisfactorily settled in a day or two. Since, however, the latter part of 1873, "an emissary of the social democratic party," writes the British Consul at Memel, came to make his permanent abode in that town, and the strikes have been carried on in a methodical manner.

In daily succession, carpenters, masons, sailors, printers, and all other kinds of tradespeople, gave notice that they would lay down work if their demands were not agreed to. In most cases they were successful, and, in consequence, their pretensions have become to be unreasonable. "The worst result of the social warfare," adds the consul in his report,—and here British "strikers" may take note,—"beside sthe momentary embarrassments of trade, is, that ultimately labourers derive no permanent benefit from it; for in the same proportion as the price of labour rises, so the prices of food and all other necessaries of life advance. The situation of the working class at present is no better than before, and will become worse whenever a duller period arrives."

The wages of the common labourers employed in agriculture are about 1s. 6d. per day. Of those in timber-yards, &c., 2s. 6d. to 3s.; of masons, carpenters, smiths, &c., 4s. 6d.—an advance of from 50 per cent. to 75 per cent. on the wages paid three or four years ago.

Antiquities of Scotland.—The *Athenæum* states that Miss Christian Maclagan has published a folio volume,—which is illustrated with forty photolithographic plates,—of the Hill Forts and Stone Circles of Scotland. The work is dedicated, by permission, to the Queen. The authoress is a lady associate of the Society of Antiquaries of Scotland.



ST. PANCRAS VESTRY-HALL.—MR. H. H. BRIDGMAN, ARCHITECT.

THE HOUSE OF THE SOCIETY OF PAINTERS IN WATER-COLOURS, PALL MALL EAST.

Mr. Cockerell, Architect.

THE SOCIETY OF PAINTERS IN WATER-COLOURS.

THE rapid growth and attained perfection of water-colour painting in this country must be singularly striking to all who have noted its lowly and unpretending origin in the delineations of the numerous illustrations of the latter part of the last century, whose subjects,—old castles, monastic ruins, and gentlemen's seats,—were made fashionable at that time by the "Tours" of Pennant. These drawings for the most part were executed in a neutral compound of black and blue, over which the slightest tinge of colour was passed to express the natural hue of objects. Even Turner and Girtin followed for a time the regular formula. Soon, however, to cast it aside; and, by reversing the whole process, they gave to their works a power and fascination of "local colour" not hitherto achieved. The way thus opened, others were not slow to follow the improved mode of practice initiated by these two distinguished artists.

Painters now began to devote themselves entirely to painting in water colours, and rapidly gained in mastery over the material. About the year 1801 the idea of an exhibition exclusively for water-colour pictures began to be whispered about. The water-colour painters complained loudly that they had little opportunity of showing their works with credit to themselves. The small and ill-lighted Council-room of the Royal Academy at Somerset House was the only place open to them as general exhibitors, but this room was crowded with a mixed assemblage of miniatures, architectural drawings, and the worst of the pictures in oil, amongst which were thrust the works in water-colours, between windows, and under windows; and not unfrequently in the dark corners of the room devoted to sculpture, where they could scarcely be seen, or if seen at all, at the greatest disadvantage. Another ground of complaint was a law of the Royal Academy which excluded from the honours of that body those artists who wrought in water-colours only. It was urged with reason that professional rank ought not to depend on the character of the vehicle used, but solely on the merit of the works, in whatever material executed; and they pointed to the inventive powers of Turner, Girtin, Barrett, Varley, and other artists of eminence, who had entirely changed this branch of the fine arts from the "tinted" and "stained drawings" of their predecessors, and invested it with all the power and dignity of painting. Other considerations of personal advantage were not overlooked by the projectors of the new exhibition, the first idea of which sprang from the mind of Shelly, an eminent miniature-painter, in a conversation held with W. F. Wells, who will be remembered as the intimate of Turner, who originated the conception of the "*Liber Studiorum*." W. H. Pyne, the author of "Wine and Walnuts," and Robert Hills, so well known from his admirable etchings of cattle, joined them. These four artists frequently met to discuss the practicability of the scheme. Turner was inaccessible, as he was working for the Academy, and Girtin had just died. The utmost hope of the projectors was that they might muster twenty names to start with, but from various causes the accomplishment of their plans lingered for nearly three years. It was not until November 30th, 1804, that ten artists could be gathered together at a meeting held at the Stratford Coffee-house, in Oxford-street, who, agreeing upon a code of laws, elected W. S. Gilpin, president; S. Shelly, treasurer; and Robert Hills, secretary, and constituted themselves the "Society of Painters in Water-colours."

The first exhibition of the newly-inaugurated Society took place at rooms built by Vandergutch, the engraver, at 20, Lower Brook-street, and was opened to the public, with a display of 275 works, on April 22, 1805.

The experiment, thus fairly started, prospered beyond the expectations of the most sanguine. The exhibition was daily crowded with distinguished visitors, and an eager curiosity possessed those who claim to live and rule in the exclusive region of taste, which found expression in surprise and admiration at the power and excellence of the works exhibited, and in hearty congratulations to the members on the success of their undertaking. Thus was laid the foundation of a school of art, which, mainly through the continued exhibitions of this Society from the period of its establishment to the present time, has yearly risen in estimation and influence, and become the parent of many similar associations, both in this country and on the Continent. The splendid works of Barrett, Prout, Harding, Cattermole, Fielding, Dewint, David Cox, William Hunt, and many more, testify to the genius displayed in water-colour painting by the deceased members of this Society; and if we may judge by the light of recent "sales," their creations are held as of almost priceless worth in the eyes of collectors and connoisseurs, and are now enshrined with their choicest treasures.

A change has been effected in the house of the Society.

The space now occupied by the entrance-hall and front formerly consisted of three separate entrances to three separate tenements, each approached by an ordinary doorway in an ordinary front. These doors gave access to the gallery (by the long ladder-like staircase, so well known to our readers), to the premises of Messrs. Tanqueray, wine merchants, and to a private residence on the mezzanine and upper floors.

The mezzanine has now been thrown into the hall. The staircase rises from the hall by a winding flight to a landing, which leads on to the upper portion of the old staircase, to which but little has been done.

The confined space of the hall, which had to accommodate the three entrances as before, rendered any great architectural effect difficult of attainment. It has been sought to give height and interest by treating it somewhat in the style of the ancient atrium, with the addition of the stairs, and with much success. The pavement—a reproduction of the *opus sectile*—is by Mr. Burke, of Regent-street and Newman-street, and is a good specimen of this revived work.

The exterior, of which we give a view, is of Portland stone, with granite columns and pilasters, and there are panels of coloured marble in the piers, which, with their surmounting terminal figures, support the balcony.

The engraving renders any description of the design unnecessary. The architect is Mr. F. P. Cockerell; the builders are Messrs. Jackson & Shaw, of Earl-street, Westminster. The sculpture has been executed by Signor Fabbrucci, formerly of Florence, now of River-terrace, Cremorne-road. The interior is being very simply decorated, and the gallery will be opened for a private view of the regular exhibition of the year this week.

A CITY OF THE FUTURE.*

LETTERS FROM SHAKSPEARIA BY SCAMOZZI SMITH, ESQ., ARCHITECT.

Written to his Friends in London during the Summer and Autumn of 1915-16.

MY DEAR ——,—Returning home from our last walk we took a circuitous path that we might pass through the beautiful village of Edensor, on the borders of which my friend's house may be said to stand, and on which as we approached it, the setting sun shone through light and fleecy clouds, giving it the most pleasing aspect imaginable, the spire of the church rising above the picturesquely-arranged houses, and cottages embosomed among trees. Beyond, in the distance against the clouds, rose the lofty domes and spires, and towers of the great city itself, which elsewhere seemed to melt into Heaven; and certainly forming the most picturesque architectural outline I had ever witnessed anywhere. But that was a charm that had followed me all day. I mentioned the circumstance to my companion, who attributed it in part to the varied line of the elevations, to the roofs being in all cases visible above the elevations, to finials, and to the introduction of curvature into the roofs. Most are curved, and show curvilinear forms throughout, which I take it is the chief source,—not from any aim at the picturesque.

It arises from the varied line and pinnacle-crowned elevations, with designed and decorated beauty-moulded chimneys,—but partly also from the fact that the roof is in all cases seen above as the natural crown of the building, giving it dignity and expression, which, though it seldom rains, is never flat,—(none of these mountainous amorphous roofs of France, nor in Gothic the extreme triangular roofs),—showing curvilinear forms of every kind, from the barrel vault to the hemispherical dome. Barrel and mixed concave roofs, segmental roofs, tetragonal or square domes, pentagonal domes, hexagonal and octagonal domes, decagonal, duodecagonal, parabolical domes, are all common forms; more especially domes of every variety of section, both horizontal and vertical, which they are very expert in constructing, both with stone, brick, or tiles, and iron. The effect of which variety of roof is, that it gives more harmony to the general view of the roof, and makes the hemispherical dome, when it appears, look more at home, and not so isolated a form as it seems among our straight-lined roofs, where it is out of harmony with all about it, as the intermediate forms between it and the straight lines are wanting. Here the deficient links are supplied; for here are all shapes of roof from the triangular to the globular, and convex and concave, and mixed. Here the oblong plans are covered with the cylindrical form, and the square and the multangular with domes of various vertical sections, and this, I believe, is a main source of the beauty of the buildings under notice.

On our return I found a highly-intellectual company, chiefly of our profession, assembled to meet me, and among them one, an architect, who had just returned from a tour in Europe, including the British isles. They were of almost all religious persuasions to be found in Australia, from the Roman Catholic to the Presbyterian and Quaker. A conversation ensued which confirmed my impression that it is impossible for us to be agreed on the subject of architecture while we differ on that of religion, with the career of which architecture has always been connected, and with whose destinies I believe it is involved.

As was natural, the travels of the tourist, who was a Lutheran, that is of the Reformed or Protestant Church, occupied a good deal of the conversation. He was fully alive, I soon perceived, to our shortcomings and errors, more especially to those of the modern Gothicists, whose wholesale copying, and imitation of accidents and alterations and blunders in the original buildings, discontinuous cornices, with the mutilation ostentatiously displayed, putting as it were in italics what ought not to appear at all,—these and the like were commented on to the great amusement of the company, not dreaming, so great is the freedom of speech and innocence of personal offence, that it could cause any uneasiness to the Englishman. "How admirably adapted," said the tourist to me, "must be those notable churches, built, as your newspapers have it, in the style that prevailed in the latter quarter of the thirteenth century, how admirably adapted must they be to the religion and taste of the first quarter of the twentieth!" I felt myself bound to confess that in the matter of copying, the Classicists as well as Gothicists were verily guilty. "True," said the traveller, "but your Classic men do not go back to archaic periods of Grecian art for models, nor to Grecian art at all. And we never hear of a church to be built in the style that prevailed before the siege of Troy. You either take the style modified by the Italians, or you adapt it to the use of the day yourselves, and never outrage common sense, by showing a Protestant church in the guise of a Greek temple." I told him we had done even that, and much worse, for we had reproduced the ponderous and mysterious architecture of the Nile of 3,000 years ago for modern English purposes.

Sir Joseph, always inclining to the charitable side, said that it was probably not from want of artistic power that so much copying was resorted to, but from a wish or hope that with the actual forms they would revive the old feeling and spirit of the Mediævalists. But the wish, he continued, was a vain one. The style of feeling, both in sculpture and architecture, that characterised the ecclesiastical works of the Middle Ages, deeply rooted as it was in the religious fervour of the times,—of which it was the genuine fruit,—can never be really revived in a time of such entirely different spirit as the present.

The sculptor remarked that the general revival of Gothic architecture would be a misfortune to sculpture, as it would depress and lessen its scope, which required the association of the refined and perfect lines of Classic architecture for its full development in the display of the nude human figure, which alone was the worthy object of sculpture, and which no sculptor, who aimed at the highest excellence possible in his art, and who had been reborn, as it were, under the influence of the marvels of the Greek chisel, could forego. But Gothic architecture had no such refinement of line to echo and welcome this high style of sculpture. It could only embrace the draped figures; the roundness and beauty of the nude would make it look more harsh and wiry, and angular. It

* See pp. 327 and 344, *ante*, with letter from Mr. S. Huggins.

was only in Classic that the sculptor could revel in the beauty of the nude. A Romanist, whose jealousy seemed roused by what was said of the Classic style, here begged to remind us that the Gothic style was the genuine offspring of the Universal Church in the Middle Ages, born within it, born in its service, and that that Church had still need of it as its proper handmaid, and essential to its full ministrations.

The Protestant first speaker was sure he would give no offence by expressing his belief that the architectural imagination of those interesting ages, ingenious and poetic as it was, had been unable to escape the infection of their superstition; and that its fruits to us inspired feelings in respect of religion which the light of philosophy had dispelled. Mediæval Christianity, so far as it was retained among us, might be fitly symbolised by the Mediæval architecture; but if we gave Christianity the cheerful and benign aspect which he believed in truth belonged to her, and wished to portray her in her native loveliness as the comforter and consoler of man, divested of that gloom and terror which had too often shrouded her fair face, and which some of the reformers had deepened rather than removed, though they were really unknown in the primitive and pure ages of the Church,—if we wished so to represent Christianity, it would require the refined and sunny architecture of the South, which was, nevertheless, capable of expressions grave and sublime, as its architectural exponent.

The Romanist replied with great good humour that the architects of those works were the abbots and bishops of a Church that he believed to be unchangeable and infallible, and to have received the truth in direct descent from the fountain Head of Truth, and was therefore immovable by the advance of philosophy.

A Dissenter, or rather Presbyterian, who had hitherto been silent, here entered the lists against both combatants. It was due, he said, to the spirituality of God and of his religion that we should have better expressed the idea that He dwells not in temples made with hands; and have left a wider difference in reference to mode of worship between us and the heathen. Some one mentioned the Israelitish temple, built by the command of God, and where He promised to record his name and manifest his presence. That was under another dispensation, he replied, wherein the Jews were the peculiar people of God; but now all men were equal in the sight of God, who was no longer a respecter of persons or places.

"Then why do your people build houses to God?" asked mine host. "We do not build houses to God," was the reply. "Bethphage Chapel is not God's house: it is our meeting-house for Christian fellowship and union in worship, and was built not for God's honour, but our convenience. No house was or could be made by man worthy even to be called His. A field or plain, with the horizon for its walls and the canopy of heaven for its ceiling, would be more like God's House than anything they could build. But God's House was the glorious universe, and the absurdity of calling any little pile of brick or stone the House of God was more apparent since the disclosures of astronomy had so expanded our notions of the creation, turning what had hitherto been deemed earth's midnight lamps into unnumbered worlds. Besides, it was not honouring God to offer to Him the same kind of material grandeur that had been offered to Jupiter, to Venus, or Apollo. All the splendours introduced into the Christian Church," he believed, "was an imitation of the heathen temple, which they had never equalled. Christians, with the Mahommetans to boot, who at least were pure Theists, had been building temples all over the world for nearly 2,000 years to the True God; but they had not built one equal in perfection of architecture, and expression of mind, to one the Greeks had built to Minerva. The ancient Magians," he said, "or followers of Zoroaster, improperly called Fire Worshippers, showed truer notions of the Deity when they worshipped him in the open air, merely turning towards the sun as his emblem, which it was, and an infinitely more glorious one than we could create in our churches."

Not only did the patriarchs Abraham, Jacob, and Job not build temples, contenting themselves with open-air altars, but the ancient Babylonians, who practised the earliest species of idolatry, the Sabean worship of the stars, for ages built none; and it was not till idolatry had fairly set in amongst the Egyptians that temples were built to the Deity or supposed Deities.

He was, nevertheless, an enthusiastic lover of architecture, and as such should have wished to see the Gothic, if reproduced it must be, reproduced in a different manner in Europe; a wish in which the Romanist cordially sympathised, even he admitting that the Gothicists were utterly astray in reference to the style they were attempting to revive. He said it should be revived artistically, not archæologically, and ridiculed the manner in which it had been dealt with in England.

The pleasure of this conversation was greatly heightened by the good humour with which it was carried on. Nobody seeming in the least hurt by the expression of opinion, or by his neighbour holding a different opinion to his own, it being understood that opinion having nothing to do with the will, expression of a hostile opinion could not betoken ill-will.—Yours, &c.,

SCAMOZZI SMITH.

MY DEAR ——,—Next morning, just before my departure, I had the rare pleasure of looking over the portfolio of Sir Joseph's unexecuted designs,—the brightest visions and embodiments of thought and feeling of his life. In some of these the architect or sculptor has drawn more largely than I ever saw or could conceive possible, with a view to execution, in stone or marble, upon the golden visions and winged shapes that lie mirrored within the soul's fairy-land,—the fancy and imagination. But he modestly attributes all his success in design to his careful, watchful attention to the teachings and softest whisperings of Nature. In whom, as a guide to the architect, he has the most unbounded confidence. There are, said he, sources of light and inspiration in nature,—the Hebe and immortal mother,—yet unbroached, ready for our use when earnestly sought, which yet remains, like the statue of Isis, an image of beauty and truth, from which no hand has lifted the veil.

I returned home—that is, to my hotel—highly delighted with my visit, having spent a few of the happiest days I can call to mind in this charming house; perhaps, after all I have said, most charmed by what I have scarcely mentioned, the conversation of mine host and hostess. The latter I had met before this visit, and had noticed for her elegance of manners,—her wit, her delicate taste, and eloquent enthusiasm for all the fine arts, which throws a charm over all around her. To a woman's heart she unites a mind reflective and lofty, capable of comprehending the great aims of life, and, of course, of fully sympathising in the high aspirations of her husband. I need scarcely say she is well acquainted with architecture, which she thinks a highly captivating study. I remember she seemed astonished when I told her it was generally considered a dry and uninteresting subject by English ladies. It was a pity, she said, the intellectual ladies of England lost so great a pleasure, as she was sure they would consider it, if once they broke the ice, as it could only be dull and uninteresting to the dull and uninteresting. Its career, she said, was the career of the combined reason and imagination of man, and its symbol was one of the most brilliant lines of thought on the chart of human history. Her husband, as I told you, is a poet as well as an architect. He certainly possesses the most valuable of the poetic tendencies,—that of exalted faith in the attributes and destinies of humanity. Of him you will have some idea from his works, and the slight sketches I have from time to time given you of his views and opinions on various and great subjects,—more especially architectural style. Would that I could convey to you some notion of the amiable and captivating manner, the winning smile, the accents low and musical, that gave additional charm, or doubled the charm, with which they were uttered. Of thi more anon.

I now send you an account of some houses in the neighbourhood of Sir Joseph's. One of these has the different stories in different kinds of stone, or stone and marble; the basement being cold blue grey granite, the principal story a warm yellow fine-grained stone, the attic Sienna marble, each sufficiently carried into the other in various features and details, to add unity to the variety. The height of these stories is beautifully proportioned for effect. This house exhibits, too, a fine specimen of grouping two stories into one composition, giving a greater unity to the composition. But I was more charmed with a small building in which the windows and doorjambs, and pilasters and columns and entablatures, were of yellow buff Sienna marble, or yellow polished granite; the intermediate walling was of red granite, also polished, and the panels, friezes, bassi rilievi, &c., of blue. The caps of columns and other sculptured features were of white stone. In some humbler domestic buildings I have seen the same effect aimed at by a cheaper means, by putting in panels or the frieze of a finer grained stone, and painting or staining them. Circular disks, sometimes of coloured tiles,—the poorest will not tolerate the monotony seen in our house fronts. I see nothing irrational in colouring a panel or frieze green or blue; cemented buildings are often done so; panels formed, and then painted blue or green or red. Yellow stone dressings, ruby-red bricks, with deep blue or purple frieze and panels, is a common arrangement for smaller buildings in which terra cotta ornaments are frequently employed; and also superior classes of washable bricks of different tones of colour, are all used here. You will be surprised to hear mention of cement. But coating with an excellent cement is practised here, and one of the most remarkable ornaments of this charming neighbourhood is a house so coated. But it is not made to imitate stone, but is consistently decorated, though it is properly made to sympathise with others, the usual decorations of which it, as it were, reflects. It is decorated by mouldings and panels, and tastefully and delicately tinted decorations; for whatever the material, the Australians will not tolerate monotony so wearying among us. This latter house I found was built round a garden. It is of two stories, and the bedrooms, most of them, look out upon it, and open into balconies overlooking it.

We place terraces along the drawing-room façades. But how seldom owing to the weather can these be used? How much preferable the inclosed garden or cloister walk for the purpose of airing and exercise.

I now send you, according to promise, a sketch of one of the finest of the Neo-classic churches, the Church of St. Lebbeus, which I visited in company with Sir Joseph.

It is of the Basilican form, and is remarkable for the purity and beauty of the nave, which reminded me of the celebrated Church of St. Annunciata at Genoa. But the side walls of the lofty aisles, instead of being, as in that example, pierced for entrance to side chapels, is unbroken from end to end, and decorated, between the responding pilasters, with a grand series of fresco paintings, lighted by windows peculiarly contrived with reference to the nature and requirements of fresco, in the roof of the aisles. The ceiling of the nave has panelling or tracery, and carved and coloured decoration, but no figure subjects, and looks really more grand than any figure-charged or historic ceiling I ever saw in Italy or France; which is not its only merit, for here the supposed difficulty of uniting the ceiling with the walls or pillars in this style, not felt in the Gothic, is completely overcome. In most early examples of Neo-classic you find the ceilings cut off from the supporting columns by the unbroken line of the cornice, which has an effect destructive of unity between wall and ceiling; but here there is no continuous cornice, and the framing of the ceiling springs from the shafts and pillars as its roots, just as well as it could have done in the Gothic style. The whole, moreover, has been constructed on the most perfect acoustic principles, with no more obstruction or variation from the cylindrical form than was just sufficient for the faint echo, and the result is that the effect of the grand organ is such as to show that the Classic style is no more opposed to the requirements of music than the Gothic; if it was not, indeed, proved 400 years ago at St. Peter's at Rome where the silver trumpets employed at Easter festivals are remarkable for a sweetness of sound not found elsewhere. Above the pillars, and crowning the perpendicular plane of the nave, are marble figures of the Apostles and Evangelists, such as you seldom see. The soul sits in the eyes and breathes from the lips of each enchanting form, which seems the personification of inspiration itself. These add greatly to the unity and harmony of the nave which is farther enhanced by the extreme elegance and grace of the columns of the chancel. They are a kind of caryatic order, in which the female figure is so delicately treated, rather gently incorporated with the pilaster than substituting it, that it disarms all criticism. It is formed of a centre pillar core, surrounded by three emblematic figures of Faith, Hope, and Charity. They occupy the upper

third of the height, and rest on a solid portion of concave hexagonal section. They divide the nave of the chancel from a very narrow surrounding aisle.

The entrance-portico, or loggia, which externally has a most poetic effect from the contrast and play of the highest lights and deepest shadows, has its background embellished with some fine frescoes, with excellent effect, which reminds me that I have some further remarks to make on the pictures of this church. The frescoes just named, as well as those of the interior, and which appears to me to be in grandeur not far behind those of the Sistine Chapel at Rome, are remarkable for a deep and solemn splendour of tone which reminds one of the veiled splendour of Hannibal Caracci and the Bolognese school of colour. In these frescoes I found a recognition or confirmation of the truth, that the loftiest conception of humanity, set forth with all the excellencies that the latest schools have introduced into the art, best expresses the divine, and that the spiritual is embodied by the perfection of the natural. The art is high and religious; not because the subjects are from the Bible or the legends of the Church, but because it is true to nature, pure, and beautiful. Nothing that is sickening or revolting to the feelings of humanity,—no martyrs on the rack or on the fire, no breaking of legs by executioners,—nothing but what is elevating and ennobling has been admitted into it. But they have another good quality. They keep in their place as painting, and do not intrude upon the architecture, and the result is that, although here almost as great a contribution has been made to the adornment of architecture by the sister art of painting, as in the celebrated Sistine chapel, no eclipse is sustained by the architecture. All is most admirably balanced and harmonised. The great pictures are separated from each other by coupled pilasters of bold projection, elegant proportions, and foliated capitals, and strips of wall besides, which keeps the pictures in their places, and well sustains the architectural dignity of the building. This is a feature of the church which has given me great pleasure, as it has solved to my mind very clearly an important problem in architecture. In the Chapel of Sixtus perhaps the highest offering of pictorial art ever made to architecture was made; but the result has been that the architecture it should only have adorned has been overborne and destroyed by it, which has led many to doubt whether it was in the power of architecture to receive and fitly display, without injury to itself, such master-works as those which the Italian painters of the cinque cento adorned the churches of their day. But in this Roman chapel it appears to me that no adequate effort was made in favour of architecture to make it bear out against its encroaching sisters. This chapel appears to me to be nothing more than a picture-gallery, and one in which, being short of room on the walls, its designer hung the pictures on the ceiling, where they should not have been hung at all.

Architecture must be the principal, and as principal it may receive, as proved by this Australian example, the highest products of painting.

In my next I shall give you some account of the theatres of Shakspearia, which exist not for the exhibition of buffoonery, but for didactic purposes. They are designed accordingly, and are places worthy of the Tragic Muse.

The theatres and opera-houses are fine buildings, every way satisfactory as regards architectural character and beauty, convenience and fitness. They are not the gay tricked-out things familiar to us; but like the Greek Theatre make some approximation to the sacred air and character of the place of worship, which indeed they resemble in other respects, and are entitled from their destination and high object, to emulate in solemnity and grandeur of character. The histrionic exhibitions within, which are worthy of any class or style of architectural and artistic accompaniment in the building, are of the highest character both intellectually and morally. But you have probably already heard of the high moral tone of the Australian stage, which is the fountain, not of corruption, but of pure morals, and lofty aspirations, and resolves, which with its elevated aims, has earned for it a right, which it has largely used, to draw for strength upon the great characters and sublime passages of the Bible, and embrace sacred as well as profane history in its range. The theatre here, which is ranked among the redeeming things of life, is a school of virtue, and men resort to it to learn or strengthen themselves in their duty, and acquire an elevation of spirit and sentiment. The spectator is fired with emulation by the high and glorious examples of moral rectitude there held up to his view, in the captivating ministrations of the Tragic Muse; and the virtuous sentiments there acquired are not afterwards effaced by harlequins and buffoons.

This is what might be expected from the generally pure state of public morals, which must have a restraining influence on the stage. It is, nevertheless, due in part to a tribunal appointed by the Government, which must give its verdict on the merits of all compositions destined for the theatre ere they can be produced, which must, of course, greatly contribute to the purity of dramatic composition; and as to anything indecent or immoral being imbodied, it is out of the question, and, as a consequence, a theatre is no more liable to become a rendezvous for the lewd and profligate of either sex than a church. A consequence of the purity of the stage is that the histrionic art and profession are held in far higher repute than they are in England. It takes its true place, which, being a study of life and portrayal of the human heart, and connected with and akin to the highest arts, is necessarily a high place.

As in churches so in theatres, there are always a large portion of free space; their entertainments being considered as belonging to the people, and a means of popular enlightenment and refinement. Theatres are not mere commercial speculations, but are built by philanthropic individuals of the highest and purest aims.

All this, as will no doubt have occurred to you, seems to indicate a nearer approach or return than has perhaps ever been made in modern times to the unity of feeling among the ancient Greeks; the oneness of their democratic liberty, their religious faith, and their most joyous amusements, with whom, more particularly the Athenians, theatrical representations were an act of worship, interwoven with the piety of the nation, and identified with their ideas of what they owed to the immortal gods.

I send you a small rude sketch of the theatre, which I inspected in the company of Sir Joseph, but had seen before in my customary short walk before breakfast, at which time it happens to be seen under a peculiar and poetic disposition of light and shade, and such is its singular perfection that, as I mentioned before, it soothes and harmonises my mind for the day. I feel thrilled, as it were, by the great soul that lives in it; while its higher elements,—the lovely-faced and heroic forms that breathe from stone and colour, buoys up my spirits, and gives a triumphant joy and gladness to the mind.

The sketch can only convey an idea of the grand composition, of which everything else is worthy; suggesting that the architect must have nurtured his muse in the Helicon formed in his mind of Nature and all extant art and human life, present and past. Poetry, history, legend, all must have been laid under contribution, and every ancient and every modern style have been made to contribute something of grace or energy. The whole, I may say, is clad in the glories of history and legend; every block is eloquent with high and touching memories of the immortal and glorious past, and pregnant with wisdom or instruction for the present and the future.

The porch, which is large and far projecting, like the Galilee porch, like the graceful and pathetic prelude, or opening speech of a grand drama, duly announces and anticipates the beauty of the great subject. In it, and the great entrance-hall to which it leads, and which is always open, the interesting form of sculpture, the bas-relief is in great requisition, adorning them with images of beauty and tenderness, all that is most lovely and delightful in the physical and moral world. These sculptures are so disposed, and of such subjects, as to have the most touching effect upon the imagination, suggesting more than they express, and leaving the spectator, as I believe all truly great works of art do, in a state of musing, ecstacy, wonder.

The great principle, or moral, that this building illustrates for me, is that the highest ideal in art, as in life, is the blending of the beautiful and the tender with the intellectual and powerful. It exhibits throughout what we so much want in England, that sincere love, and worship, and study of the beauty created by the Divine Artist, without which every form of art must languish, and an earnest aspiration after the ideal and perfect. The pleasure I found in its survey was greatly increased yesterday morning by the evident delight it gave my younger companions, and the ladies old and young, to whom I then showed it for the first time, and whose sparkling eyes and glowing cheeks eloquently spoke their just appreciation of its merits.

In this building, I said to myself, as I bent my steps homewards, surely the architect has probably succeeded in embodying the great image he has carried in his soul. For myself, I may say with Goethe, on a similar occasion,—"The impression which this edifice has left on my mind is not to be expressed." I was going with him to add, "and will produce imperishable fruit."—I am, and shall remain, yours, &c.,

Scamozzi Smith.

SOMETHING MORE IMPORTANT THAN A GALLERY OF THE OLD MASTERS.

Sir,—The notion that large galleries of pictures by the old masters are an essential institution in a civilised country has been so assiduously disseminated, and has taken such deep root in the English mind, that it will be difficult to eradicate it. Still it might be hoed and raked out by the force of reason, if, instead of taking conclusions at second hand, we would only accustom ourselves to a little independent thinking. It is by no means a logical inference that England ought to have a great gallery of the old masters because other European nations have galleries of that kind. It would be just as reasonable to conclude that we should have a large standing army and a small navy as that we should have Alpine mountains, large lakes and rivers, and wider lands, because other nations have these. Every nation has its own special and exceptional conditions to provide for, and as it does this judiciously or injudiciously, will it be great or little.

It will, I think, be readily conceded that the size of a National Gallery does not constitute its excellence in any part of the civilised world, it is the character of the treasures contained which give to it a higher or a lower rank. If the sizes of the Louvre, of the Dresden, Berlin, Munich, and Madrid galleries could be doubled, and granting that these have a great educational value, this value would not be increased in the same ratio, for they could not be "filled up" with examples of so high, nay, even with specimens of an equal, merit with those they now contain. Where, then, would be the gain from increased size? The power of a national collection of the old masters is, therefore, at its full when it shall contain perfect examples of every school; and we give ourselves unnecessary uneasiness when we fume because our own is not so extensive as either that of the Louvre or the Pinacothek.

There is another consideration, too, which is always slipping out of mind, viz., that the greatest works of the old masters are to be had neither for love nor money. They are a fixed, unalterable and immovable quantity; therefore, should we determine to fill a very great extent of gallery, we should have to content ourselves either with works of an inferior quality or "fill out" with copies. And if the great educational value of examples by the old masters could be conceded, I do not know whether a gallery of copies of the finest existing works of art would not be preferable to one filled with second-rate, though perchance original, works. But this educational value cannot be conceded, for the history of modern Italian art, of a highly organised people, contradicts it.

We talk about rivalling the Continental national galleries in their extent and number of works, but what are the proportions of any of those when compared with the extent of wall covered by the master-pieces of the Italian painters in Italy? No gallery in the civilised world can compete with that country in the wealth of its art-treasures, and yet, as Charles Burton has shrewdly observed, the Italians have had all these magnificent works daily present to them for a period longer than it took to create Italian art without Italy showing the slightest symptom of an art-revival,—sufficiently conclusive evidence, one would think, that the mere presence and admiration of the masterpieces of art have little to do with the development of a national school of painting and sculpture; not even when the people before whom those masterpieces are displayed are by nature the most fitted for artistic study.

Here, then, is a lesson over which we may ponder. The nation, the wealthiest in art-treasures, made these treasures for herself, not by whining about collections of the *old masters*, but by the direct encouragement and employment of the artists of the time,—of those masters

in fact, which were in future to be *par excellence* the "old masters." We might do the same if we would but be independent in thought and action, instead of following a quite modern fashion, a French fashion. The project which I have recently put forward for a National History Gallery would, if it were carried out, initiate an art policy similar to that which was adopted in Italy, and which, in the long run, would in all probability lead to precisely similar results. This was the method of developing art not only in Italy, but in Greece.

There is clear and direct evidence that the fine arts were not developed in Greece and Italy by the means which we are adopting; neither had, in our sense, National Galleries; and in the case of Italy it is also to be noticed that the possession of the finest and most extensive collection of art-treasures could neither prevent the decadence of art, nor revive it. It is manifest, therefore, that we have been led somehow or other to form an entirely exaggerated and false estimate of the educational value of a collection of the old masters. Doubtless such a collection may be interesting to most people, it may be delightful to many, and it may suit the indolence and want of patriotism of men who ought to know better than to ascribe the defective state of art to our want of an extensive National Gallery. But art never was developed by means of collections of this kind. Painters who use such collections the most, and make National Galleries their studios, never make any mark in art. In fact, there never was nor ever will be any substitute for direct encouragement, the employment of artists on great national works. It may be a necessity of modern times that we must cater for the sightseers, and that a National Gallery may be made one object of attraction. But let us clearly understand that it is for this purpose, and little else, that it is useful.

Mr. Barry's design could possibly be accommodated to the more practical and useful purpose of a National History Gallery, and be carried out either at South Kensington or in Trafalgar-square. Trafalgar-square would certainly form a grand and central site for a National History Gallery. If this were so located the old masters could be removed elsewhere, and to a building of moderate dimensions. But in altering the architectural features of Trafalgar-square we should bear in mind that if the elevation of the new façade should materially exceed that of the present Gallery the spacious appearance of the square will be contracted, spoiled. I believe Mr. Wilkins had maturely considered his design, and that the present building is in height rightly proportionate to the locality. It is of a height amply sufficient for the purposes of a National History Gallery, and I can only hope that my suggestions may give fresh scope to Mr. Barry, and prevent a wasteful sacrifice of money on a gigantic gallery of the old masters.

W. CAVE THOMAS.

SANITARY AND STRUCTURAL DEFECTS OF OUR SCHOOLS.

DR. GEORGE WILSON, Medical Officer of Health for Mid-Warwickshire, and formerly Medical Officer of H.M. Convict Prison, Portsmouth, on Thursday, the 15th inst., read a paper before the members of the London Morayshire Club, on the Structural and Sanitary Defects of English and Scotch Schools. Mr. James Duncan, of H.M. Civil Service, presided, and there was a numerous attendance of members present. In the course of his remarks, Dr. Wilson said:—According to the Scotch Code of 1874, before any grant is made to a school, the Education Department must be satisfied that "the premises are healthy, well lighted, warmed, drained, and ventilated, properly furnished, supplied with suitable offices, and contain in the principal schoolroom at least 80 cubic feet of internal space, and in the school-room and class-room at least 8 square feet of area for each child in average attendance." Now, on the face of it, that appeared to be a very wise provision, but with the exception of the cubical space allowance, which he believed to be too small for the requirements of perfect health, the other conditions are expressed in such general terms that he very much feared it would be found that they were seldom carried out as they should be. According to his experience, and it was now a pretty extensive one, the public elementary schools of Scotland, as well as those of England, concerning which similar conditions are imposed, were, as a rule, neither well warmed, well ventilated, properly furnished, nor were they supplied with suitable offices. They were cold and draughty in winter; very often anything but clean; often the windows were without blinds to keep out the glare of the summer sun; the desks and seats were frequently of the old-fashioned and comfortless kind, and the less said about the outside offices the better. No doubt considerable improvement might be expected in the new schools which are being now erected, but the description he had given applied pretty closely to the sanitary and structural condition of a very large number of our elementary schools, particularly country schools. To secure good ventilation and sufficiency of light, there should always, if possible, be windows made to open at top and bottom on opposite sides of the school-room. Between the windows, and near the ceiling, there should either be special inlets for fresh air provided with Sheringham valves, or a hollow metal cornice should be carried continuously round the room, divided longitudinally throughout its whole length into two separate channels. By this latter system, which had been highly spoken of by the architect of the London School Board, the fresh air is admitted through openings in the wall into the lower channel, and falls imperceptibly into the room through numerous perforations; while the vitiated air is carried off through similar perforations in the upper channel, which is connected either with the smoke-flue or some other air-shaft. Dr. Wilson said he made special mention of this plan, because it could easily be applied to existing schools that are not well ventilated, and because it was sightly and comparatively cheap. Then, again, as good ventilation could not be secured in a variable climate such as ours, independently of a good system of warming, it was of the utmost importance that in schools supplied with stoves or open fireplaces, the stoves or grates should be what are called ventilating stoves or grates. He knew of none better or cheaper than those devised by Captain Douglas Galton, but there were so many patents on the same principle that School Boards would have no difficulty in making a selection. They were all arranged for the purpose of heating a large volume of fresh air as it enters the room, thereby obviating the risks from draughts of cold air, and economising fuel. With regard to desks and benches, he would specially recommend those devised by Dr. Liebreich, of London. They remove discomfort, support the back, prevent any straining of the eyes when the pupil is writing or drawing, and do away with the risks of weakening and distorting the spines of pupils, especially in girls' schools. For effective teaching and discipline all double desks or desks fastened against the walls should be removed and parallel desks supplied in their stead. In addition to all these requirements, he need hardly say that cleanliness was of the utmost importance. Not only should the floor be always well swept and regularly scrubbed, but the walls and ceilings should be thoroughly cleansed at least twice a year. He should like to see a lavatory in every school, at which hands dirtied at play could be washed, and, to "call a spade a spade," he had no hesitation in denouncing the privies attached to country schools as filthy and dangerous nuisances, which are often the means of spreading infectious disease, and frequently give rise to diarrhœa and other kindred complaints. In places where water-closets are out of the question, either the earth-closet system or some similar system should be enforced. Dr. Wilson concluded by remarking on the importance of every school having as ample a playground as possible. It should, he said, be supplied with sufficient apparatus for simple gymnastic exercises. Moreover, boys, as a rule, were so fond of playing at soldiering, and fighting sham battles, that their physique and submission to discipline would be immensely improved if they had, like the boys of the Royal Caledonian Asylum and several other kindred institutions, a drill-master. For a very small outlay contiguous school boards could easily secure the services of an efficient pensioner to drill the pupils of their respective schools; and, to say the least, the advantages gained would recompense a thousand fold the trifling cost that would be incurred.

Tunnel under the Severn.—The Great Western Railway tunnel under the Severn is getting on very fast. Work will soon begin from two shafts in addition to that from the ends. It will cost a million sterling.

SANITARY ENGINEERING.

INSTITUTE OF CIVIL ENGINEERS, IRELAND.

ON the 7th inst. there was a general meeting of the Society, Mr. J. Hill, C.E., county surveyor, presiding. A paper was read on Sanitary Engineering, by Mr. Richard W. Walsh, C.E. After a brief review of the great importance attached to public health by the ancient rulers, and the immense sanitary works which still remain to prove their skill, he proved by quotations from Dr. Burke and others, that Dublin is now one of the most unhealthy cities in the kingdom, the average death-rate for 1872 and 1873 being above 30 in the 1,000, and that as the city is naturally very well situated, the cause must be from neglect of sanitary laws. The water-supply from the Vartry was very good, but the blessing became a curse for want of proper drainage, as the sewers had neither a beginning nor an end, for there were only 4,000 house-sewers constructed in twenty years, with 24,000 houses in the city, and there was no outfall for the system, which ended in the Liffey; and, again, all the low-lying districts could not be drained without pumping. Men were dying, but the Corporation were still reporting. He also thought that the house accommodation for the labourer was exceedingly bad and dear, and the scavenging and paving were faulty. He considered the Council of the Institute were to blame in not being more vigilant in securing a recognition of the profession in the Public Health (Ireland) Act, 1874, and in allowing the duties of the civil engineer to be transferred to the medical profession, in reporting on waterworks, sewers, &c. Dr. Haughton and several members joined in discussing some of the points in the paper, after which the proceedings terminated.

A NEW BUILDING ESTATE AT CAMBERWELL.

AMONGST other estates and plots of land in the suburban districts around the metropolis, which in constant succession are being laid out for building purposes, is one at Camberwell, which it is expected will very shortly be covered with houses and an entirely new population. The land referred to is situated not far from the Loughborough Junction Station of the London, Chatham, and Dover Railway, and covers altogether an area of from fifteen to twenty acres in extent. It is bounded on the north-west side by the portion of Coldharbour-lane within the parish of Camberwell, and on the south by the London Bridge and Victoria section of the London and Brighton Railway, and extends eastward as far as Denmark Hill. A portion of the land is now being laid out in streets, and drained preparatory to building being actually commenced. One of the streets runs exactly parallel with the London and Brighton line, and the grounds at the rear of the houses on one side of the street will extend to the railway. The piece of land being laid out is triangular in form, and the outer portion will be surrounded by three streets, with two other streets in the centre. The number of dwellings intended to be erected on the portion of the estate now being laid out is about 120, and will be residences suited to the middle-class population. The clearing of the land for its intended purpose has necessitated the destruction of a large number of fine trees. The land is intended to be let on building leases for 99 years.

A NEW CHURCH FOR DARLINGTON.

THE foundation-stone of a new parish church has been laid at Albert Hill, Darlington, by the Mayor (Mr. H. F. Pease). The church consists of a nave, 68 ft. by 32 ft.; chancel, 36 ft. by 21 ft.; north and south transepts, each 20 ft. by 14 ft.; organ chamber, and sacristy, the latter occupying the lower part of the tower, which is placed at the junction of the south transept with the chancel, and, together with the spire, rises to a height of about 148 ft. The east end of the chancel is apsidal in form. The style adopted is is fourteenth-century Gothic, with characteristic window tracery, and the transepts and chancel are separated from the nave by massive moulded arches in ashlar, springing from carved corbels, with red Mansfield shafts. The chancel is provided with sedilia and reredos, and further enriched with arcading and diaper work below the window-sills, while the seats will be open benches of pitch-pine, with sloping backs and moulded ends. Accommodation is provided for about 500

people, and the church is so planned as to admit readily of future enlargement. The cost, exclusive of tower and spire, will be about 5,000*l*., or, in all, 6,500*l*. Messrs. Ross & Lamb, of Darlington, are the architects. The contractors are:—For the masonry, Messrs. Simpson & Cowling; joiner's work, Mr. R. T. Snaith; slating, Messrs. Pattison & Son; plumbing & glazing, Mr. R. Smith; and painting, Mr. S. Harrow; clerk of Works, Mr. Davison,—all of Darlington.

ELY CHAPEL.

It has long been suspected that St. Etheldreda's Chapel, in Ely-place, was still possessed of its ancient timber roof, although carefully concealed by modern disfigurements; and any doubts on the subject were last Monday set at rest when, by removing slates in a line up to the ridge, a roof in the simple and severe style adopted by fourteenth-century architects was laid bare. Its construction is that of a coupled-rafter roof. There is no ridge-piece, and no longitudinal tie except the two wall-plates and the external boarding. The rafters averaging 8 in. by 6 in., laid flatways, are about 9 in. apart. There is a vertical strut framed into the inner wall-plate and the rafters, and above are cross-pieces and a collar, all about 8 in. by 4 in. All the pieces are united by double tenons, and secured with projecting wooden pegs. The material used appears to be chesnut-wood, and is in good preservation. The architects, Mr. John Young, jun., and Mr. Bernard Whelan, were enabled to make a measured drawing of this interesting piece of ancient carpentry.

ARTISANS' DWELLINGS BILL.

On Monday evening last this Bill passed the committee, and, amid much cheering, was ordered to be reported to the House. We were glad to note that there has been no real opposition to it. Most of the changes which we found it our duty to suggest had advocates during the debate, but for the most part did not find favour with the majority. We may take occasion to return to them with reference to the passage of the Bill through the House of Lords.

METROPOLITAN BOARD OF WORKS.

ORNAMENTAL TOWERS ON THE THAMES EMBANKMENT.

At the meeting last week, the Works Committee brought up a Report stating that they had considered a letter from the treasurer of the Middle Temple, asking the Board to introduce a clause into their general Bill in the present session of Parliament authorising the erection of two towers in connexion with an extension of Harcourt-buildings, Temple, in advance of the frontage line laid down in the Thames Embankment Act. It appeared that the benchers were desirous of extending the buildings known as Harcourt and Plowden Buildings down to the line of the reclaimed land on the Victoria Embankment, which, by that Act, was added to their garden. As the façade of the new buildings would form a very unsightly angle to the Embankment, the architects proposed to obviate this by introducing a tower at each corner which would project 7 ft. beyond the line to which, by the Thames Embankment Act, 1862, section 28, the societies are restricted from building more than a certain height, and they trust that, inasmuch as this slight projection will not be attended with any inconvenience, the Board would not feel indisposed to aid them in obtaining a modification in the clause referred to, and suggested that the Board having a Bill now before Parliament, such an exemption might be introduced into it, the Benchers being prepared to bear all expenses. The committee recommended that the request be complied with, in the event of there being sufficient time for the insertion of the necessary clause in the Board's General Powers Bill, and on the understanding that the Board incur no expense in the matter.

The recommendation was agreed to.

DISTRICT SURVEYORS.

A report was brought up from the Building Act Committee, recommending that the district of St. Mary, Newington, and part of Lambeth, be divided into two districts; the one, comprising the parish of Newington eastward of the Walworth-road, to be designated East Newington; and the other, comprising the portion of Newington westward of the Walworth-road, together with the portion of Lambeth bounded on the west by Kennington-road and part of the Clapham-road, and on the south by Vassall-road, to be designated West Newington and part of Lambeth.

Mr. Selway, in moving the adoption of the report, reminded the Board that this was the district in regard to which they had to pass a very unpleasant resolution some time since. The average gross income from this district for the last three years was about 900*l*. per annum.

The motion was carried.

The same committee further recommended that the district of East Hackney be divided into two districts, to be designated East Hackney North and East Hackney South, and that the North London Railway do form the line of boundary between such districts.

Mr. Selway moved the adoption of the report. He said the average gross income from the district was about 700*l*. a year. It was true the income was smaller than in the previous case, but in this instance the committee thought that there was ample room for growth.

The recommendation was agreed to.

It was also resolved, on the recommendation of this committee, that the usual course be taken for filling up the vacancies in the office of district surveyor for the above-mentioned four districts, viz., East Newington, West Newington and part of Lambeth, East Hackney North, and East Hackney South respectively; that advertisements be issued, inviting candidates for the appointments; and that the Board do proceed to the elections on Friday, the 30th inst. at twelve o'clock at noon.

CHARTHAM ASYLUM, KENT.

At the adjourned annual General Session for the transaction of county business, held at the Court House, Maidstone, last week, the Finance Committee reported that the visitors of the asylum at Chartham had reported that a further sum of 50,000*l*. would be required before Michaelmas next, to complete the buildings, and provide all furniture, fittings, bedding, clothing, &c.

The architects (Messrs. Giles & Gough) reported that although since their last statement a considerable amount of work had been done, and portions of the building advanced towards completion, the progress made by the contractor had not been so great as they had had reason to hope and expect. Two blocks on the south front, including the additional stories over the same, had been completely finished, and were now occupied by patients; four others adjoining these in the same front were also far advanced, and would be the next ones ready for the reception of patients. The two assistant medical officers' houses had been for some time finished and furnished, and were now temporarily occupied by the medical superintendent and steward and matron. The administrative portion, including kitchen, dining-hall, general stores, laundry, &c., were completed with all their fixtures, fittings, and machinery throughout, and were in working order.

ASSOCIATION OF MUNICIPAL AND SANITARY ENGINEERS AND SURVEYORS.

The sixth meeting of the District Committee for the Midlands was held in the Council Chamber, at the Town-hall, Northampon, on Thursday, the 15th instant. The objects of this Association are the promotion and interchange among its members of that species of knowledge and practice which falls within the department of an engineer or surveyor engaged in the discharge of the duties imposed by the Public Health, Local Government, and other Sanitary Acts; the promotion of the professional interests of the members, and the general promotion of the objects of sanitary science. The members of the council present were Mr. Lewis Angell, M. Inst., C.E., West Ham, London (the president of the Association), and Mr. E. Pritchard, Assoc. Inst., C.E., hon. sec. for the Midlands, Warwick. The other members present were—Messrs. J. H. Pidcock, Northampton; E. J. Purnell, Coventry; G. Cole, Hereford; T. T. Allen, Stratford-on-Avon; J. Lobley, Hanley; E. Monson, Acton, London; E. Sharman, Wellingborough; J. D. Simpson, Buxton; and T. W. Baylis, Redditch. The visitors were:—Mr. D. Tough, manager of the Heathcote Sewage Farm, Leamington; and Mr. W. Boon, Coventry.

Mr. Angell occupied the chair, and expressed the pleasure it afforded him to meet the members of the Association in Northampton. This was the first time they had visited the town, but he had no doubt that here, as elsewhere, they would have an interesting day's work carved out for them. He regretted that the attendance was somewhat small, but this was owing to many of the members being engaged on Parliamentary work. The critical state of the health of the wife of Mr. Jones, the general secretary, also prevented that gentleman from attending.

Mr. Pritchard, the hon. sec., then read the minutes of the last meeting, which were confirmed. The secretary also read letters from members of the Association residing in all parts of the country, expressing regret that engagements which could not possibly be foregone prevented their attendance. They hoped, however, that the meeting would be a successful one.

The President announced that the Council had presented a memorial to the Local Government Board, asking for certain points of amendment in the Local Government Act, especially for that which will put the borough engineers on the same level as medical officers, and give them the same protection. No answer to that memorial had as yet been received. They were also preparing one asking for an amendment of the Act upon several points suggested to them by their experience of the working of the old Act, and which the Government had not had clearly brought before them. He found that Mr. Lobley, of Hanley, had summarised a number of points which had occurred to him. They were certainly very valuable suggestions, and he only regretted that Mr. Lobley did not send them through the Association, as they might have had greater weight with the Local Government Board.

Mr. Lobley replied it was really a report to the General Purposes Committee, and they instructed that it should be printed.

Mr. Monson suggested that an attempt be made to get the words "new road" defined in the new Act, as at present it was a matter of difficulty.

Mr. Pidcock quite agreed with Mr. Monson. Northampton was at this time in a very serious dilemma on account of the difficulty. The Act defined a road to mean a footpath or any public passage, and the consequence was that they had a passage of more than half a mile in length, which, when built upon, made the houses all irregular, being up to the boundary in some places, and 30 ft. back in others. He considered there should be a clause compelling those who built by the side of a narrow road to set back, so that there should be at least 40 ft.

The Chairman remarked that the suggestions made would be considered. With reference to the financial position of the Association, he mentioned that there were 160*l*. in hand, and stated that the Council had decided upon publishing the proceedings of the Society from the commencement.

Mr. Monson objected to the printing, but the other members present considered that it would be advisable to adopt the proposal of the Council, believing that the publicity thus given would be of considerable benefit.

It was accordingly proposed by Mr. Baylis, and seconded by Mr. Purnell, that the meeting approve of the publication.—Carried.

The company then, under the leadership of Mr. Pidcock, paid a visit to the Sewage Farm. The various matters in progress were explained by Mr. Pidcock, who also replied to the number of questions put by members of the Association. Returning, after a couple of hours' survey, they visited Messrs. Turner Brothers, Hyde, & Co.'s shoe manufactory. The senior partner (Mr. Richard Turner) conducted the party, and all appeared to be interested in the manufacture. After this an adjournment was made to the Town-hall, where Mr. Pidcock read a paper on "Northampton and its Sewage."

At five o'clock the company dined together at the George Hotel. The Mayor (Mr. William Adkins), presided, and he was supported by Mr. Angell, the president of the Association; Mr. J. Barry, chairman of the Sewage Committee; and Mr. H. P. Markham. Mr. Pritchard occupied the vice-chair.

The loyal and patriotic toasts were first disposed of, and Mr. Angell then proposed "The Municipal Corporations of this Country." He had introduced this toast because it was to the local governing bodies of the kingdom they, as engineers and surveyors, owed their liberties and principles. He coupled with the toast the name of a gentleman who, as the chairman of

the Sewage Committee, knew what they had to perform. From what they had seen to-day they would all agree with him that the question of sewage disposal had been carried on with energy, and he believed the town had adopted the right course.

Mr. Barry, in responding, remarked that the Corporation of Northampton was one of the most ancient, and had therefore participated in the advantages spoken of by Mr. Angell as being derived from the establishment of local institutions. Until the last few days, however, the Corporation had not been associated with the work which had brought this Association here to-day; but he had held office with the Commissioners, and had taken great interest in the sewage question. He hoped the transfer of the powers of that body to the Corporation would be beneficial to the town and neighbourhood. It was with pleasure he had met them, because he thought the work they were engaged in was one of the greatest importance to the health and welfare of all communities; and he trusted that their meeting to-day would be productive of beneficial results to themselves and the town of Northampton.

The Chairman proposed the toast of "Success to the Association," coupling with it "The President and Officers."

Mr. Angell, in acknowledging the toast, thanked the Mayor for the kind and sympathetic words he had uttered towards their Association. On behalf of the members, he could say that they had enjoyed their visit, and from what they had seen and heard of Mr. Pidcock's work they were sure he must be a valuable officer, and one whose services were thoroughly appreciated and rewarded. He agreed with him that their office was of great importance, and he was pleased that it was recognised by governing bodies. Referring to the Mayor's remarks, he said that the establishment of this Association enabled them to associate together, to interchange views, find out what was doing in other parts of the country, and get unity of action.

Various other toasts followed.

THE TOWER AS A PRISON.

SIR,—In noticing (p. 343) Mr. Hepworth Dixon's contention that in length of days the Tower of London has no rival among prisons, you accidentally omit from your interesting list the Tullian, afterwards termed the Mamertine, Prison in Rome, begun, as Livy states, by Ancus Martius, or about 640 B.C., and added to by Servius Tullius. There are substantial grounds for believing that in the lower of the two remaining cells Jugurtha was starved, the Catiline conspirators were strangled, and Sejanus was executed; traditionally also, St. Peter was there confined by order of Nero (compare Murray's "Rome"). E. L. TARBUCK.

OPENING UP GREECE.

SIR,—In your journal of the 24th of October, 1874, under the head of "Miscellanea," there is a paragraph headed "An Athenian Donor," who gives 6,000*l.* a year to benefit Greece, and offers a premium for the best essay showing how to do it. In reply, I beg to offer a few suggestions that may be tantamount to writing an essay. I must first introduce myself to your notice as a pioneer and mineral explorer in the interior of this vast continent of Australia, and one that has been the means of opening up some of the mineral and other resources of the country. First, I would raise an "exploring party," headed by a scientific gentleman from England, whom I would get to bring with him an efficient staff, for the purpose of exploring and developing the resources of the country, as to its capabilities for agricultural, pastoral, and mineral pursuits. Vast tracts of this country have been opened up by such means, and parts that had been unknown are now flowing with milk and honey. Secondly, I advise that the 6,000*l.*, to be spent annually, be expended in the following manner:—1,000*l.* for personal expenses of exploring party, and the remaining 5,000*l.* for working and developing the resources of the country. As the resources are opened up, and become remunerative, it would be necessary to raise factories and other works, to prepare the material (available) for market.

The profits arising from the undertaking, I would advise to be disposed of in the following manner:—First, to build dwellings for those employed on the works, and to let them at a small rate. Secondly, to build schools, hospitals, and literary institutions; also for the benefit of those employed and their families.

There is no doubt, looking at the geographical position of Greece, that there can be a ready market found for her products; and it only remains for Greece to become a producing country, and encourage arts and manufactures (without which no country is prosperous), to grow into importance.

In conclusion, I beg to add, that whoever the benevolent gentleman is that offers the premium for the best essay for the benefit of Greece, that he may succeed in his most sanguine expectations in whichever way he may approve of, is the humble wish of a stranger many thousands of miles away. EDWARD GOOD.

Darling River, New South Wales.

PERVIOUS AND IMPERVIOUS.

SIR,—Consistently with the principles of discussion reported in No. 1,677, p. 275 of the *Builder*, would not the following be the right way to build a healthy and comfortable house?

Use the most impermeable materials for foundations, copings, cornices, and strings; also for upright projections, as pilasters. Contrariwise, use the most porous bricks that can be got for general flat surfaces, or recessed panels; and cover the whole of these latter with louvre boarding, through which the wind might blow upon the porous bricks, while driving rains would be restrained.

Probably an equivalent effect has often been obtained and enjoyed in many an old ivy-covered house. G. M.

IMPROVED DWELLINGS FOR THE INDUSTRIAL CLASSES.

Sir,—In your impression of last week you give, under the above heading, a description of the prize design for dwellings for the industrial classes, proposed to be erected in Goswell-road; and among the drawings which illustrate that description you give "Details of the Domestic Offices." These details are so much at variance with the recognised principles of sanitary science that I venture to call attention to them before any buildings are erected upon such a model.

1. The cistern which supplies the water-closets supplies also the soulleries with water. The objection to this is obvious.

2. The "overflow" of the cistern is led into the soil-pipe. It is true that the overflow is "trapped" by a syphon, but as there is no guarantee that the trap might not be emptied either by evaporation or by suction, every opportunity would be given for the penetration of the miasma of the soil-pipe into the cistern. The "overflow" and "waste" of a cistern should clearly be into a general waste-pipe of large bore (such as a 4-in. rain-water pipe), whose lower end should discharge in the open air, near, but not immediately over, a trapped gulley.

3. The wastes from the sink are led into the traps of the water-closets, there being also a trap beneath each sink. The effect of this "double trapping" will be that every time the water-closet is used, the large trap of the closet will (to use the plumber's phrase) "syphon out" the smaller trap of the sink, and the effluvium of the soil-pipe will penetrate into the scullery without hindrance. The sinks should all be made to discharge into the general waste-pipe referred to in the last paragraph.

4. The waste water from the bath-room and wash-house is described as being "available for flushing the soil-pipe." Considering that this waste water could be hot, no more ingenious mode of cracking the soil-pipe could be devised.

It cannot be too strongly insisted upon that the soil-pipe should be the conduit from the water-closet only; that no other part of a house should communicate *directly* with the drains, and that all waste-pipes from sinks, cisterns, or baths should be led *indirectly* to the drains by a general waste-pipe open to the air at the extremities.

I had nothing to do with the competition, and know nothing of it but from the information given in your excellent paper. N. S. J.

New Reservoir, Poole, Dorset.—The contract of Messrs. Dunford & Son, builders, of this town, for erecting a new reservoir at Longfleet, has been accepted by the Water Works Company, and the work is being pushed forward rapidly.

"GRINDING MONEY."

IN a case which lately came before Judge Bayley at the Westminster County Court, wherein a carpenter, named Burton, sued a builder, named Wagner, for 5*s.* 3*d.*, being two hours' "grinding money," and five hours' "waiting money," his Honour said it had been ruled over and over again that "grinding money" could not be recovered. Since the "hour" system was introduced in 1859 the majority of the larger firms had refused to pay "grinding money," and as to "waiting money," he certainly should not allow that, because few persons got money without waiting for it. He should nonsuit the plaintiff, with costs.

SIR,—*Apropos* of your notice of a communication between the Joiners' Society and the Master Builders' Association, a case was decided at the Bloomsbury County Court (Nightingale *v.* Thompson & Smith), on the 16th inst., in which the judge (Mr. Russell) ruled that the defendants had fully met the requirements of the case by giving one hour's notice, and that the existence of any "general custom" had not been proved by the plaintiff and his witnesses. W. H. S.

THE RELATIONSHIP BETWEEN THE ARCHITECT AND WORKMAN.

SIR,—I have long mourned over the want of interest evinced by members of my own trade,—bricklayers,—in furthering themselves in education, and learning somewhat of mensuration and geometry. If you ask them the reason of this apathy, they will tell you that the bricklayer gets little or no credit for anything that he may do; but the foreman, who is generally a joiner,—and I do not see why this should be,—gets all the credit. How is this? Because the architect could not think of speaking to a bricklayer. I say this should not be, and why? We all know that there are such things as specifications: are they written to be locked up in a drawer in the office? I say, no: they should be to the workman what the articles of war are to a soldier. Can the workman be expected to work according to specification if he knows nothing of it? Then it is the duty of the architect to see that men understand the specification. The hanging up of drawings I do not think would act, but still I do not think the present way of giving the bricklayer instructions a good one. I think if the foreman were to explain on the drawing what he wished us to do, I know that I for one should know better how to do it. The architect then should see that this is done.

The Association that Mr. Thicke proposes, in my opinion, would be a great boon to my trade. One gentleman, in the discussion that arose, said there were many bricklayers who did not know how to properly bond their work together: let them form this Association, and they will soon find that this is not the greatest failing. But the reader seemed to think it would be a difficulty to get at us. Let him call a meeting, give us a month's notice, and then see whether we are not get-at-able. I hope he will not let the arguments of builders' foremen carry any weight until he has heard the opinions of the workmen. I hope that the Architects' and Workmen's Improvement Guild may soon be an established fact.

J. P. MORRIS.

HOW ARCHITECTS ARE SELECTED.

THE proceedings of the Sites and Buildings Committee of the Liverpool School Board last week contained recommendations that Messrs. H. & A. P. Fry be appointed architects to the new school about to be erected in or near Stanley-road; that, subject to the approval of the Education Department, the plans prepared by Mr. T. M. Reade for the erection of a school upon the Walton-lane site be adopted; and that the Board purchase, subject to the consent of the Education Department, the site in Latham-street (about 2,400 square yards) at 25*s.* per square yard, and subject to a chief rent of 63*l.* 17*s.* 10*d.* per annum.

Mr. Browne complained of the manner in which Messrs. Fry had been selected architects to the Stanley-road Schools. It appeared that the names of seventeen firms had been sent in, and of these nine were selected. The names of these nine were then put into a hat, and the appointment was made by lottery.

Cæsar's Camp, Wimbledon.—In the House of Commons, on the motion for second reading of the Ancient Monuments Bill last week, Sir H. Peek announced his intention to support the Bill on its merits. Adjoining Wimbledon Common was, he said, Cæsar's Camp, which antiquaries had made out to be 2,200 years old. In his public capacity of conservator of Wimbledon Common he had done all he could to preserve Cæsar's Camp for the public, but at the present time people were cutting down the trees and levelling part of it with a view to the erection of villas thereupon. This Camp formed one of the most important and interesting relics that they had, and some such Bill as the present was necessary in order to enable the conservators of Wimbledon Common to deal with the owner of that property.

Miscellanea.

A New Chapel at Kensington Workhouse.—On Saturday last the ceremony of laying the first stone of a memorial chapel to be erected by Mr. J. A. France, on the grounds of the Kensington workhouse, was performed by the Princess Louise. The proposed church, which is the gift of Mr. France to the parish, is to be in the Early Gothic style of architecture. It is designed to accommodate some 150 worshippers, and is to be constructed of red brick, with Portland stone facings. A porch, vestry, and organ chamber will be provided, and the building is to be surmounted by a tower, which will add largely to the attractiveness of its appearance. Mr. Arthur W. Blomfield is the architect, and the builders are Messrs. Dove Brothers, of Islington.

Death Traps.—At the meeting of the Lambeth Vestry on the 16th inst., attention was drawn by Mr. Glanville to the fact that the traps in houses were the cause of much sickness if not properly looked after. He believed he had recently lost his wife through this cause. Mr. Fowler said the traps in many houses were not looked after, but the evil arose principally through the neglect of the plumber or bricklayer. Where no water was put on, and the houses were closed, and the gas lighted, the unhealthy effluvia of the drains were drawn out, and sickness and death followed. The matter was referred to the Sanitary Committee. We have said the same thing very often.

Royal Italian Opera.—Some brilliant representations have been given, with a variety very delightful to the *habitué*. "L'Africaine" included Mdlle. d'Angeri as *Selika*, Signor Naudin as *Vasco di Gama*, and Signor Graziani as *Nelusko*. Signor Naudin's voice has lost nothing of its power, and he began well by giving the defiance to the Council with immense energy, and Signor Graziani, the original *Nelusko* in this country, sang all the music, including the melodious "Figlia dei Rè," finely. The spectacular portion is now beyond commendation. On Tuesday, Mdlle. Albani made a most successful reappearance as *Amina*, showing remarkable advance. There was no mistake about the recognition of the house.

Institution of Surveyors.—At the ordinary general meeting, held on Monday, April 12th, the adjourned discussion on the Home Secretary's "Bill for Facilitating the Improvement of the Dwellings of the Working Classes in Large Towns," was resumed and concluded. At the next meeting, April 26th, a paper will be read by Mr. W. L. Huskinson, entitled "Large Estates and Large Farms *versus* Peasant Properties."

British Archæological Association.—On Wednesday, the 28th of April, the paper read will be "Notes on the Roman Way to Verulam," by Mr. E. Roberts.

The Town-Hall of Worcester.—In a letter to the Town Clerk, Sir G. G. Scott says, "I do trust the report is untrue that your Corporation are about to destroy the best and most valued building in your city, next to the Cathedral. I refer to the Town-hall. It is a national example of architecture, and that of a very characteristic and favourite style and period. Its destruction would be a repetition of the disgrace Worcester underwent from the demolition of the Guesten Hall, and would give you in all future time a most unenviable notoriety." We believe it will be preserved.

Proposed Bridge at Benton Bank, Newcastle.—On the 13th inst., the Town Improvement Committee had an interview with Sir William Armstrong, at Jesmond, relative to a proposal he has made to throw a bridge over the Ouseburn, and connect Jesmond-road with Benton Bank by something like a High Level Bridge in the place of the present low structure. When the bridge, which, we understand, will be a very elegant structure and will cost something like 20,000*l*., is completed, the land on the east side of the Burn will be laid out for building sites.

Crystal Palace School of Practical Engineering.—On Saturday last, the annual meeting and distribution of certificates to pupils in the School of Practical Engineering, established under the auspices of the Crystal Palace Company, took place in the southern tower of the Crystal Palace, where a large proportion of the practical engineering work of the school is carried out. Mr. E. J. Reed, M.P., presided.

Belfast Architectural Association.—On Monday evening last week, a public meeting of this Association was held in the Museum, when a paper on "Elizabethan Architecture" was read by Mr. Robert Watt, B.E. The chair was taken by Mr. Vere Foster. The lecture was illustrated by a collection of water-colour drawings, representing specimens of Elizabethan architecture,—such as the mansions of Wollaton, Holland, and Burleigh; details of ceilings and friezes, &c., exhibiting the peculiar characteristics of the period were also shown.

New Town Hall and Police Station at Wakefield.—On the 13th inst. a meeting of the Wakefield Corporation was held. Two hours were devoted to a discussion on a recommendation for a committee to build a Town-hall on a site in Wood-street, between the Court-house and Mechanics' Institution, and which was secured for that purpose about twenty years ago, the cost to be about 20,000*l*. The council divided, when it was decided, by 15 to 7, to erect a Town-hall as recommended.

A National Opera House.—At a meeting of the Metropolitan Board of Works, on the 16th inst., a letter was read from Mr. J. H. Mapleson, of her Majesty's Opera, Drury-lane, requesting the Board to inform him what would be the lowest amount accepted for the freehold of the ground held by him on the Victoria Embankment, for the purpose of erecting thereon a National Opera House. The communication was referred to the Works Committee, to consider and report thereupon at the next meeting.

Irish Antiquities.—Mr. Wakeman, of Enniskillen, hon. sec. of the Royal Historic and Archæological Society of Ireland, has discovered a megalithic chamber containing human bones, ashes, skulls well preserved, and a cinerary urn, which disclosed the site of a pagan cemetery, as Mr. Wakeman believes. The bones show clear traces of burning, and that charcoal was used in the process. The discovery was made on the land of Colonel Foliott, near Ballyshannon, in the county of Donegal, recently.

Temples, Mounds, and Caves.—A lecture was delivered before the Society for the Encouragement of the Fine Arts in London, on the 15th inst., by Mr. William Simpson, F.R.G.S., on "Temples I have visited." The lecturer showed how intimately temples were connected with grave mounds and caves, and demonstrated the universality of temples in all ages and countries, tracing the origin of them from Egypt to Assyria, and thence to Greece and Rome.

A "Light" Explosion!—An explosion which caused severe damage has occurred at "The Brackens," Nightingale-lane, Clapham-common, the residence of Mr. J. Phillips. An escape of gas having been noticed, an endeavour was made to find out where it arose. A light was used, and of course a severe explosion ensued. Edward Ashbury, a man aged fifty-three, was severely burned on his face and hands, and Sarah Day, aged twenty-five, injured on the arm.

Salisbury Cathedral.—A meeting was held last week, when it was resolved that steps be at once taken for re-opening the choir and restoring the great transept. The estimated expense is about 11,000*l*. Miss Chaffyn Grove proposes to remodel the organ at a cost of between 2,000*l*. and 3,000*l*. Earl Beauchamp will give a reredos, and Mrs. Sydney Lear promises 1,000*l*. towards the choir-screen.

Freehold Property near Regent Circus.—Nos. 316 and 317, Oxford-street, with extensive stabling and yard in the rear, the whole comprising about 3,000 superficial feet, with possession at Midsummer next, was recently submitted to auction at the Mart, by Messrs. Rushworth, Abbott, & Rushworth, and sold for 22,550*l*.

Artists' Benevolent Institution.—The sixty-sixth anniversary of this Association was celebrated last week at the Freemasons' Tavern, under the presidency of Mr. Beresford Hope, M.P. The president made an excellent address, and the subscriptions of the evening amounted to over 600*l*., which included 100 guineas from Her Majesty the Queen.

Fatal Explosion from a Street Lamp.—An Edinburgh street-lamp exploded on Saturday last while the lamplighter was in the act of lighting it. A boy was instantaneously killed, another boy received a severe scalp wound, a girl was most seriously injured, and the lamplighter was badly burnised.

A New Synod Hall.—Last week the new Synod Hall in Dublin, presented by Mr. Roe, distiller, to the General Protestant Synod of Ireland, was opened. The Lord Primate presided, and there was a large attendance. The business transacted was of a formal character. The building has cost 27,000*l*.

Additional Casts for South Kensington. The South Kensington Museum has acquired two more casts of the famous bronze works from Hildesheim Cathedral—namely, the font and a curious pillar. The pillar is ascribed to Bishop Bernward, of Hildesheim, who died in the eleventh century.

Proposed Opera House, Margate.—We understand it is probable that a theatre and opera-house will be erected near the jetty, on the American principle. The projectors, two American gentlemen, have been busily engaged in measuring the proposed site, and in taking other preliminary measures.

County Surveyor, Southamptonshire.—Mr. James Robinson, at present assistant to and late pupil of Mr. William Crozier, architect for the county of Durham, has been selected one of four candidates, out of forty-eight applicants, for the Surveyorship of the county of Southampton.

Munificence.—It is the intention of Mr. Henry Wilson to give an endowment to Carbrook Church, which will yield 300*l*. a year. He has already erected a parsonage-house at a cost of 1,000*l*., and contributed in several other ways to church extension at Carbrook.

A New Railway Station.—The Manchester, Sheffield, and Lincolnshire Railway Company have decided to erect a station at New Cloe, midway between the docks and Cleethorpes, on a site belonging to the Cloe Working Men's Building Society.

Gift of a Drinking-fountain, Deal.—The drinking-fountain presented to the town by Earl Granville was opened on the 7th inst., and forms an ornamental object at the corner of the Guildhall, Lower-street. So handsome a gift will no doubt be rightly appreciated by the inhabitants.

A New Bridge over the Thames.—The Court of Common Council have allowed Mr. E. Perrett, of Abingdon-street, Westminster, to submit to one of the committees for consideration a plan for constructing a bridge over the Thames from the Tower to Horselydown.

Art Union of London.—The distribution of the amount subscribed for the purchase of works of art will take place on Tuesday next, the 27th inst., at twelve o'clock, in the Adelphi Theatre. The amount of the subscriptions is larger than usual.

TENDERS

For completing three houses on the Bolingbroke Estate, Wandsworth Common, for Mr. James Lord. Mr. E. Thomas, architect. Quantities supplied by Mr. J. G. Picking:—

Austen	£997 10 0
King	995 0 0
Bowden	935 0 0
Scott	930 0 0
Bacon	917 10 0

For the erection of a detached villa, Kingston-on-Thames, for Mr. Robert J. Winter. Mr. W. P. Griffith, architect:—

Lawrence & Sons (accepted)	£2,050 0 0

For cemetery chapels and lodge, Weybridge, for the Weybridge Burial Board. Mr. T. Wonnacott, architect. Quantities by Mr. R. Carpenter:—

Martin	£1,900 0 0
Brown & Sons	1,850 0 0
Pratt	1,740 0 0
Bishop	1,730 0 0
Filewood	1,722 0 0
Farley	1,700 0 0
White	1,680 0 0
Reavell	1,640 0 0
Harris	1,599 0 0
Woodbridge	1,593 0 0
Thompson	1,560 0 0
Woods (accepted)	1,560 0 0
Patrick	1,553 0 0

For the erection of a school, boundary-walls, furnishing, &c., at Rhyd-y-Penaw, Cardiganshire, for the Cyfoeth-y-brenin U.D. School Board. Mr. Walter W. Thomas, architect:—

Tudor	£1,490 0 0
Williams	1,239 19 0
Jones	1,147 0 0
Beynon	1,146 0 0
Hamer	1,126 0 0
Jones	994 19 0

For new stables, for Mr. H. J. Waterlow. Mr. W. Thompson, architect:—

Palmer	£1,015 0 0
Rambling	970 0 0
Allard	925 0 0

For painting, &c., Highgate Infirmary. Quantities supplied:—

Thom	£1,910	0	0
Hey	1,460	0	0
Scurrah	1,189	0	0
Gibson, Bros.	1,094	0	0
Knight & Son	1,090	0	0
Kellaway	1,080	0	0
Eastwell & Peruch	1,075	10	0
Cocks	978	0	0
Nightingale	973	0	0
Phillips & Son	948	0	0
Thorn	920	0	0
Seed	795	0	0
Holms	794	0	0

For two additional dwellings to the Clock and Watchmakers' Asylum, Colney Hatch. Mr. Henry Carpenter, architect. Quantities supplied:—

Bamford	£950	0	0
Brown	850	0	0
Yardley	848	0	0
Ennor	797	0	0
Garrud	691	10	0
Ely (accepted)	521	0	0

For buildings at Waltham-cross. Mr. Thomas J. Hill, architect:—

Rist & Brown	£870	0	0
Patman	863	0	0
Sabey & Son	760	0	0
Bentley (accepted)	722	0	0

For house and shop, High-road, Southgate. Mr. Thomas J. Hill, architect:—

Sabey & Son	£1,265	0	0
Bentley	1,177	0	0

For rebuilding 234, Tottenham-court-road, for Mr. Barrett. Mr. A. Cross, architect:—

	Portland.	Doulting.	Bath Stone.
Turrill & Sons	£2,243	£2,175	£2,175
Patman & Fotheringham	2,098	2,050	2,018
Hart	2,052	2,020	1,998
Fish	2,018	1,940	1,914
Perry & Son	2,000	1,975	1,950
Howard	1,992	1,992	1,893
Williams	1,980	1,950	1,905
Patrick & Son	1,955	1,926	1,825
Langmead & Way	1,945	1,919	1,888
Simpson	1,932	1,905	1,874
Wagner	1,878	1,817	1,760
Wilson & Son	1,797	1,771	1,745

For rebuilding the Bedford Head Hotel, Tottenham-court-road, for Mr. W. Woods. Mr. A. Cross, architect:—

	Portland.	Doulting.	Bath Stone.
Turrill & Sons	£7,322	£6,925	£6,925
Patman & Fotheringham	5,998	5,709	5,513
Hart	6,120	5,933	5,792
Fish	6,050	5,837	5,372
Howard	5,982	5,982	5,382
Williams	5,940	5,766	5,480
Perry & Sons	5,890	5,723	5,556
Patrick & Son	5,900	5,570	5,245
Langmead & Way	5,820	5,667	5,497
Simpson	5,801	5,645	5,472
Wagner	5,840	5,470	5,120
Wilson & Son	5,467	5,317	5,127

For the erection of three houses and shops adjoining the Black Swan, and also for addition to the Black Swan, High-street, Bromley, near Bow, for Messrs. Smith, Garrett, & Co. Mr. F. F. Holsworth, architect:—

Kiddle & Son	£2,792	0	0
Kelley, Bros.	2,763	0	0
Mark	2,762	0	0
Johnson	2,755	0	0
Toms	2,730	0	0
Bangs & Co.	2,329	0	0

For schools and master's house at Cholsey, for the Cholsey School Board. Mr. W. Penstone, architect. Quantities supplied by Messrs. Batterbury & Huxley:—

	Schools.			Fence-walls, &c.		
Shepperd	£1,875	0	0	£100	0	0
Silver	1,769	0	0	49	0	0
Woodroffe	1,550	0	0	72	0	0
Castle	1,445	0	0	64	0	0
Dodd (accepted)	1,461	15	0	61	10	0

For fitting up offices in Bush-lane, Cannon-street, for Mr. W. B. Perry. Mr. Alfred W. N. Burder, architect:—

Williams & Son	£374	0	0
Roberts	317	0	0
Brass (accepted)	297	0	0

For the erection of two farmhouses at Ruckhold and Twyford Abbey, and conversion of old farmhouses into four cottages. Mr. Walter Graves, architect:—

Brain	£2,262	0	0
Hook & Oldrey	2,257	0	0
Haynes	1,841	0	0

For the erection of seven cottages, with shops, in Heath-street, Hampstead, for Mrs. Servier. Mr. J. W. Walter, architect:—

Carter	£2,870	0	0
Bays & Ramage	2,282	0	0
Tongue	2,000	0	0
Southcott	2,495	0	0
Boden	2,348	0	0

For Newbridge Schools, near Newport, Monmouthshire. Messrs. Watkins & Sons, architects:—

Everal	£2,725	0	0
Linton	2,420	0	0
Williams & Son	2,350	0	0
Stephens & Bastow (accepted)	2,190	0	0
Avery & Son	2,080	0	0

For the erection of four houses, New Gloucester-street, Haggerston. Messrs. Ebbetts & Cobb, architects. Quantities supplied:—

Macey	£2,073	0	0
Garland & Perkins	1,928	0	0
Aitchison & Walker	1,695	0	0
Steel (accepted)	1,387	0	0

For new stables, Blendworth Lodge, for Sir. W. W. Knighton, bart. Mr. John Colson, architect:—

Ward	£2,593	0	0
Rapley & Sons	2,327	0	0
Newman	2,320	0	0
Gammon	2,238	0	0
Macklin	2,118	0	0
Barnes	2,100	0	0
Edney	1,987	0	0
Floyd (accepted)	1,965	0	0
Crook	1,850	0	0
Edwards	1,775	0	0

For the erection of residence at Upper Norwood. Mr. Charles Bell, architect. Quantities by Mr. Henry Lovegrove:—

	Design A.			Alternative.		
Braid, Jopling, & Co.	£5,043	0	0	£1,200	0	0
Adamson & Sons	4,944	0	0	—		
Bowyer	4,895	0	0	935	0	0
Niblett & Son	4,886	0	0	1,030	0	0
Smith	4,864	0	0	948	0	0
Bangs	4,821	0	0	969	0	0
Hobson	4,748	0	0	906	0	0
Nightingale	4,699	0	0	992	0	0
Kirk	4,678	0	0	972	0	0
Crabb (accepted)	4,651	0	0	925	0	0
Wright	4,622	0	0	1,193	0	0
Burford (withdrawn)	4,534	0	0	739	0	0

For the erection of lodge and entrance-gates at Upper Norwood. Mr. Charles Bell, architect. Quantities by Mr. Henry Lovegrove:—

Wright	£458	0	0
Smith	436	0	0
Bowyer	425	0	0
Braid, Jopling, & Co.	422	0	0
Bangs	420	0	0
Adamson & Sons	420	0	0
Kirk	415	0	0
Niblett & Son	413	0	0
Hobson	404	0	0
Nightingale	403	0	0
Burford	391	0	0
Crabb (accepted)	372	0	0

For the erection of stables at Upper Norwood:—

Bangs	£1,102	0	0
Niblett & Son	1,100	0	0
Adamson & Sons	1,090	0	0
Smith	1,083	0	0
Braid, Jopling, & Co.	1,073	0	0
Bowyer	1,050	0	0
Hobson	1,046	0	0
Wright	1,036	0	0
Nightingale	1,035	0	0
Crabb	1,018	0	0
Kirk	998	0	0
Burford	909	0	0

For residence and stables at Upper Norwood, for Mr. W. S. Black. Mr. Charles Bell, architect. Quantities supplied:—

Joplin	£6,538	0	0
Adamson	6,404	0	0
Niblett	6,399	0	0
Smith	6,383	0	0
Bowyer	6,370	0	0
Bangs	6,343	0	0
Hobson	6,196	0	0
Nightingale	6,135	0	0
Wright	6,116	0	0
Kirk	6,091	0	0
Crabb	6,053	0	0
Burford	5,833	10	0

For new premises, High-street, Dorking, for Mr. R. W. Fielder. Messrs. Ingram & Hollands, architects. Quantities supplied by the architects:—

Putney	£2,264	0	0
Shearburn	2,174	0	0
Goddard	1,994	0	0
Colls & Son	1,900	0	0
Lynn & Dudley	1,895	0	0

TO CORRESPONDENTS.

Howell v. Hunt.—The defendant in this case, mentioned p. 309, *ante*, complains of the decision, but we cannot go into the question. Mr. Hunt says the verdict was for 4*l.* 15*s.*

R. K.—R. L. G.—A. G. A.—H. C.—H. & V.—W. W. T.—J. R.—P.—J. D. H.—N. S. J.—F. P. C.—W. P. & Son.—H. R. W.—S.—W. W. P.—H. F.—M. I.—S. S. P.—A. W. N. B.—T. H. A.—H. & O.—Sound (little more 'can be done in such a case beyond the ordinary "pugging").—H. H. B. (next week).—Drainage of Portsmouth (in type).

We are compelled to decline pointing out books and giving addresses.

All statements of facts, list of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

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